

Black & Decker
File No. 641

Portable Electric Tools

1953 **STANDARD CATALOG**

CHV 3/2 ✓
Unger Derhart → Martin
to file
Dolan

Black & Decker



"ELECTRIC TOOL HEADQUARTERS"



1/4" SPECIAL Drill

"Handy" and practical, this is a good, low-priced Drill for intermittent-service jobs. Die-cast aluminum housings are proportioned for comfortable handling... tool is compact and weighs less than 3 1/2 lbs. Lubricant impregnated bearings give long, dependable service. This is an ideal Drill for the tool kit.

SPECIFICATIONS

Drilling Capacity: In Steel... up to 1/4"; In hardwood... up to 3/8"
 Spindle Speed: No-load... 2000 R.P.M.; Full-load... 1400 R.P.M.
 Weight: Net... 3 1/2 lbs.; Shipping... 5 lbs.
 Overall Length... 8 1/2";

Standard Equipment—3-conductor cable and plug; 3-jaw Jacobs threaded chuck, and key; trigger switch; "universal" motor.

Price, complete, Catalog No. 30 (specify voltage).....\$28.00



1/4" Heavy-Duty Ball-Bearing Drill

A sturdy, perfectly balanced drill for constant service on production and heavy duty maintenance work. Especially suited to driving Carbon Cleaning Tools. Armature and chuck mounted on ball bearings. Automatic release switch with thumb latch for optional use.

Capacity: In steel... up to 1/4"; In hardwood... 3/8"
 Speed: No load... 2000 R.P.M.; Full load... 1300 R.P.M.
 Weight: Net... 6 1/2 lbs.; Shipping... 9 1/2 lbs.
 Overall length... 12"

Price, with geared chuck and key—(Cat. No. 32).....\$52.50

Price, with keyless chuck and gear locking device—(Cat. No. 386).....\$56.00



1/4" Heavy-Duty HOLGUN Drill

This is the latest version of the most famous Drill in the electric tool industry. COMPLETELY BALL-BEARING EQUIPPED, the HOLGUN is surprisingly compact with a new handle shaped for plenty of finger room. Built for CONTINUOUS PRODUCTION service it's also especially good in "close-corner" drilling. As for power—it will not stall at rated capacity!

	Standard Speed Model	Low Speed Model
Capacity in steel.....	up to 1/4"	up to 3/8"
No-load Speed.....	1700 R.P.M.*	600 R.P.M.†
Weight: Net.....	3 1/4 lbs.	3 1/2 lbs.
Shipping.....	5 lbs.	5 lbs.
Overall length.....	7 1/4"	7 3/8"
Catalog No.....	457	460
Price, complete, specify voltage.....	\$44.00	\$52.50

*Optional speeds (no extra cost)—2500, 3500 or 5000 R.P.M.

†Optional speed (no extra cost)—1000 R.P.M.

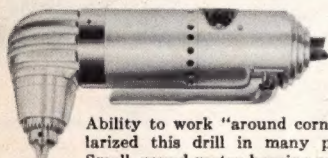


1/4" Side Handle Heavy-Duty HOLGUN

	Standard Speed Model	Low Speed Model
Capacity in steel.....	up to 1/4"	up to 3/8"
No-load Speed.....	1700 R.P.M.*	500 R.P.M.†
Weight: Net.....	4 lbs.	4 1/4 lbs.
Shipping.....	5 1/2 lbs.	6 lbs.
Overall length.....	8 1/2"	8 3/4"
Catalog No.....	459	462
Price, complete.....	\$46.00	\$53.00

*Optional speeds (no extra cost)—2500, 3500 or 5000 R.P.M.

†Optional speeds (no extra cost)—750, 1000 or 1500 R.P.M.



1/4" SHORTY Drill (BALL-BEARING EQUIPPED)

Ability to work "around corners" and in small openings has popularized this drill in many production and assembly operations. Small, round motor housing requires no extra handle.

Capacity: In steel... up to 1/4"; In hardwood... up to 3/8"
 Speed: No-load... 2500 R.P.M.; Full load... 1600 R.P.M.
 Optional No-load Speeds (no extra)... 3700 or 5000 R.P.M.
 Overall length: Chuck spindle end... 4 1/2"; Lengthwise... 8 3/4"
 Weight: Net... 4 lbs.; Shipping... 5 lbs.
 Price, Paddle Switch Unit complete, specify voltage (Cat. No. 287).....\$62.00
 Special Order:—1/4" SHORTY with toggle switch in end cap (Cat. No. 298).....\$62.00

5/16" Heavy-Duty Ball-Bearing Drill

Designed for industrial production service and especially suited to lead hole drilling on screwdriving operations. Automatic release switch equipped with thumb latch for optional use. Armature and chuck spindle mounted on ball bearings.

Capacity: In steel... up to 5/16"; In hardwood... 3/4"
 Speed: No load... 1400 R.P.M.; Full load... 925 R.P.M.
 Weight: Net... 6 3/4 lbs.; Shipping... 9 1/2 lbs.
 Overall length... 12 3/8"

Price, with geared chuck and key (Cat. No. 360).....\$55.00

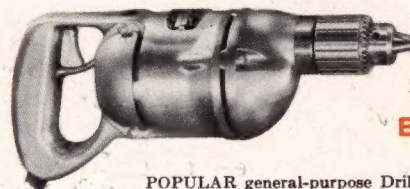
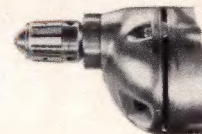
Price, with keyless chuck and gear locking device (Cat. No. 387).....\$58.50

KEYLESS CHUCKS

See 1/4" H.D. and 5/16" H.D. Drills listed above for prices as original equipment.

No. 34043A Threaded Keyless Chuck—0" to 1/4" capacity.....\$ 9.50

No. 36097A Threaded Keyless Chuck—0" to 5/16" capacity.....\$11.50



3/8" STANDARD Ball-Bearing Drill

POPULAR general-purpose Drill of 3/8" capacity, for twist drills, wood augers, countersinks and Hole Saws. Well-balanced and shaped for portable use; an excellent drill press in Bench Stand.

SPECIFICATIONS

Capacity in steel... up to 3/8" Full-load Speed... 565 R.P.M.
 No-load Speed... 900 R.P.M. Weight: Net... 7 1/4 lbs.
 Optional No-load Speeds } 1400, or Shipping... 8 lbs.
 (at no extra cost) } 2000 R.P.M. Overall length... 12 1/2"
 Price, complete, specify voltage (Cat. No. 490).....\$55.00

3/8" HEAVY DUTY BALL-BEARING DRILL

APPEARANCE SAME AS 1/2" STANDARD DRILL

Designed for industrial use in plants where production drilling of 3/8" holes at high speed is required. Design features same as for 1/2" Standard Drill.

SPECIFICATIONS

Capacity, in steel... up to 3/8"
 No-load Speed... 900 R.P.M.
 Weight: Net... 9 1/2 lbs.
 Shipping... 12 3/4 lbs.
 Overall length... 13 1/2"
 Cat. No. (specify voltage)..... 362
 Price, complete.....\$60.00

STANDARD EQUIPMENT, Drills shown above—3-conductor cable and plug; automatic-release trigger switch and locking pin (except 1/4" Shorty); 3 jaw Jacobs threaded chuck and key; Universal motor, operating on A.C. or D.C.

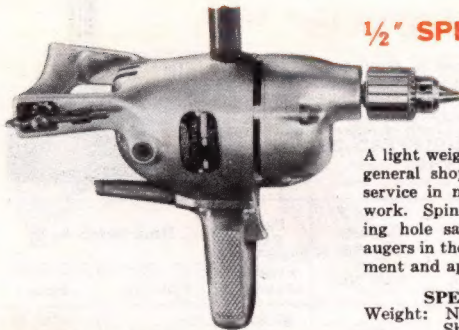
STANDARD VOLTAGE for Drills shown above—115 or 220. On special order 125 or 240 volts. 1/4" Heavy-Duty Drill only, also 32 volts from stock.

DRILL CAPACITIES in hardwood are up to twice drill capacity in steel.

Black & Decker



"ELECTRIC TOOL HEADQUARTERS"

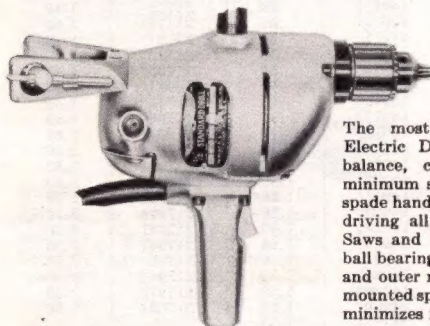


1/2" SPECIAL DRILL

A light weight tool designed for the general shop and for intermittent service in maintenance and repair work. Spindle speed ideal for driving hole saws, twist drills, wood augers in the maintenance of equipment and appliances.

SPECIFICATIONS

Capacity, in steel.....	up to 1/2"	Overall length.....	13 1/2"
No-load Speed.....	375 R.P.M.	Cat. No. (specify voltage)...	38
Price, complete.....			\$47.50

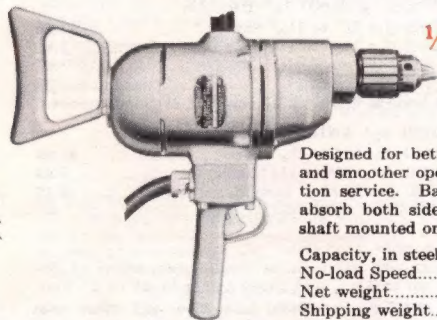


1/2" STANDARD DRILL

The most popular general purpose Electric Drill with perfect operating balance, close coupled construction, minimum spindle offset and horizontal spade handle. Spindle speed is ideal for driving all types of twist drills, Hole Saws and wood augers. Deep groove ball bearing on chuck spindle with inner and outer races locked in place. Spline-mounted spindle gear increases strength, minimizes friction and wear.

SPECIFICATIONS

Capacity, in steel.....	up to 1/2"	Overall length.....	13 3/4"
No-load Speed.....	400 R.P.M.	Cat. No. (specify voltage)...	361
Weight: Net.....	9 3/4 lbs.	Price, complete.....	\$60.00
Shipping.....	13 lbs.		

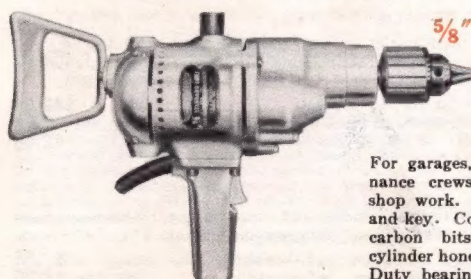


1/2" HEAVY DUTY BALL-BEARING DRILL

Designed for better balance, greater efficiency and smoother operation on continuous production service. Ball bearings on chuck spindle absorb both side and end thrust. Armature shaft mounted on ball bearings.

Capacity, in steel.....	up to 1/2"
No-load Speed.....	500 R.P.M.*
Net weight.....	17 lbs.
Shipping weight.....	19 1/2 lbs.
Overall length.....	18 1/2"

Optional—No. 2 Morse Taper Socket instead of chuck.
Price, complete, specify voltage—(Cat. No. 40).....\$84.00
Reversing Switch Unit—(Cat. No. 575).....\$94.00
*Special Speeds: 750 or 900 R.P.M.....\$5.00 extra



5/8" STANDARD BALL-BEARING DRILL

For garages, body shops, maintenance crews and general service shop work. Jacobs geared chuck and key. Correct spindle speed for carbon bits, augers, Hole Saws cylinder hones, hard metals. Heavy Duty bearing construction.

SPECIFICATIONS

Capacity, in steel.....	3/8" to 3/4"	Overall length.....	18"
No-load Speed.....	300 R.P.M.	Cat. No. (specify voltage)...	238
Weight: Net.....	17 lbs.	Price, complete.....	\$79.00
Shipping.....	21 3/4 lbs.		

5/8" HEAVY DUTY DRILL

Equipped with roller spindle bearing, Jacobs geared chuck and key. Capable of continuous production work.

Capacity, in steel.....	3/8" to 3/4"	Shipping weight.....	27 3/4 lbs.
No-load Speed.....	450 R.P.M.	Overall length.....	20"
Net weight.....	21 1/4 lbs.		

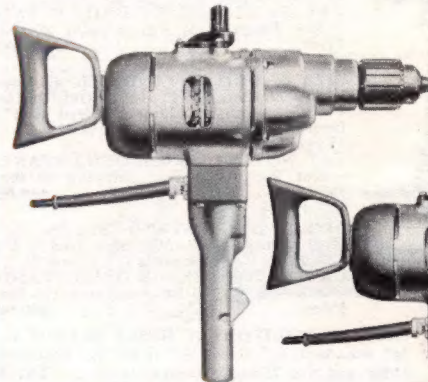
Optional—No. 2 Morse Taper Socket instead of chuck.
Price, complete, specify voltage—(Cat. No. 42).....\$105.00
Reversing Switch Unit—(Cat. No. 576).....\$115.00

3/4" STANDARD BALL-BEARING DRILL

A powerful tool, with triple gear reduction for low spindle speed. Chuck operates on Timken tapered roller bearings.

SPECIFICATIONS

Capacity, in steel.....	3/8" to 3/4"	Overall length.....	18 3/4"
No-load Speed.....	250 R.P.M.	Cat. No. (specify voltage)...	239
Weight: Net.....	19 1/4 lbs.	Price, complete.....	\$88.00
Shipping.....	23 lbs.		



3/4" Heavy-Duty Drill



1" Heavy-Duty Drill

3/4" HEAVY DUTY BALL-BEARING DRILL

Latest motor gives 40% more power than previous models. Armature pinion and first intermediate gear changed to helical type to reduce noise and wear. Taper-roller spindle bearing, extra long switch handle and pipe handle, special safety switch, Jacobs geared chuck and key.

Capacity, in steel.....	3/8" to 3/4"	Shipping weight.....	34 lbs.
No-load Speed.....	375 R.P.M.*	Overall length.....	21"
Net weight.....	27 1/4 lbs.		

Optional—Nos. 2 or 3 Morse Taper Socket instead of chuck.
Price, complete, specify voltage—(Cat. No. 45).....\$115.00
Reversing Switch Unit—(Cat. No. 555).....\$125.00
*Special Speeds: 275, 600 or 900 R.P.M.....\$5.00 extra

1" HEAVY DUTY BALL-BEARING DRILL

New motor gives 25% more power than previous models. Armature pinion and first intermediate gear changed to helical type to reduce noise and wear. No. 3 Morse taper socket. Drilling in steel, 1"; light reaming, 3/4" heavy reaming, 5/8".

No-load Speed.....	350 R.P.M.*	Shipping weight.....	30 lbs.
Net weight.....	28 1/2 lbs.	Overall length.....	20"

Price, complete, specify voltage—(Cat. No. 47).....\$130.00
Reversing Switch Unit—(Cat. No. 556).....\$140.00
*Special Speeds—275, 600 or 900 R.P.M.....\$5.00 extra

1 1/4" HEAVY DUTY BALL-BEARING DRILL

A new unit of increased power, with extra long safety switch and pipe handles. Motor housing is cast with adaptor pad to fit this Drill to Size 80 Drill Stand. Drilling capacity, in steel, up to 1 1/4". (With 3-2 or 3-1 Reducing Sleeve, range is extended down to 1/2").

Reaming capacity, light, up to 1"; heavy, up to 3/4".	
No-load Speed (standard).....	250 R.P.M.*
Net weight.....	32 lbs.
Shipping weight.....	38 lbs.
Overall length.....	20 1/2"

Price, complete, specify voltage—(Cat. No. 494).....\$149.00
Reversing Switch Unit—(Cat. No. 557).....\$159.00
*Special No-load Speeds: 350, 600, 900 R.P.M.....\$5.00 extra

Standard Voltage on all Drills this page—115 or 220 (32 volts also on 1/2" Standard). On special order 125 or 240 volts. Universal Motors for A.C. or D.C.

Black & Decker



"ELECTRIC TOOL HEADQUARTERS"

DRILL STANDS

Quickly adapt portable drills to drill press operations; for heavy duty and accurate work. Handle leverage permits tremendous pressure; bracket adjustable for height and lateral position; one bracket fits several tools and no adaptors are required.

SIZE 20 DRILL STAND—Fits all end-handle Drills from $\frac{1}{8}$ " Special to $\frac{3}{8}$ " Standard; the No. 12 SCRUGUN, $\frac{1}{2}$ " TAPGUN, No. 14 and No. 18 Screw-Drivers. Maximum feed is 2"; from C/L Bit to C/L Column is 5 $\frac{1}{4}$ ". (Type "C"). CAT. No. 22148 BENCH DRILL STAND—Net Weight 11 lbs.; shipping 14 lbs. Price.....\$22.00

SIZE 40 DRILL STAND—Fits $\frac{3}{8}$ " Heavy-Duty, $\frac{1}{2}$ " Special, $\frac{1}{2}$ " Utility, $\frac{1}{2}$ " Standard Drills. Maximum feed is 4"; from C/L Bit to C/L Column is 6". (Type "C"). CAT. No. 22145 BENCH DRILL STAND—Net Weight 16 $\frac{1}{4}$ lbs.; shipping 20 lbs. Price.....\$29.00

SIZE 60 DRILL STAND—Fits all side-handle Drills from $\frac{1}{2}$ " Heavy-Duty to the 1" Heavy-Duty. Maximum feed is 4"; from C/L Bit to C/L Column is 8". (Type "A"). CAT. No. 13857 BENCH DRILL STAND—Net Weight 54 lbs.; shipping 59 lbs. Price.....\$49.00

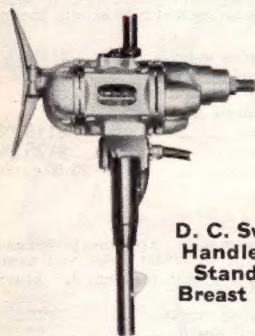
SIZE 80 DRILL STAND—Fits the 1 $\frac{1}{2}$ " Heavy-Duty Drill. Maximum feed is 4"; C/L Bit to C/L Column is 12". (Type "A"). CAT. No. 26607 BENCH DRILL STAND—Net Weight 105 lbs.; shipping 115 lbs. Price.....\$60.00

No. 23046 HORIZONTAL DRILL STANDS for $\frac{1}{4}$ " Standard, $\frac{1}{4}$ " H.D., $\frac{5}{16}$ " H.D., $\frac{3}{8}$ " Standard Drills, and Nos. 18 and 16 Gauge Shears.....\$4.75

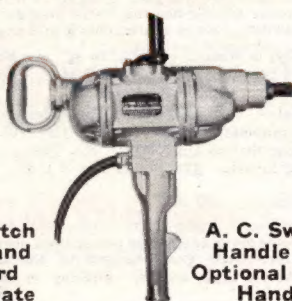
Size 40 Bench Drill Stand



No. 225 COAL DRILLS



D. C. Switch Handle and Standard Breast Plate



A. C. Switch Handle and Optional Spade Handle

The most popular size and capacity Coal Drill for constant service on regular shot-hole drilling. Suited to either one- or two-man use. Can be furnished for use on alternating current or with special condenser-equipped switches for direct current.

Specifications	For Alternating Current	For Direct Current
Speed: No-load (Standard).....	350 R.P.M.*	350 R.P.M.*
Full-load.....	200 R.P.M.	200 R.P.M.
*Optional Speed (no extra cost).....	600 R.P.M.	600 R.P.M.
Weight: Net (with breast plate).....	27 $\frac{1}{2}$ lbs.	29 lbs.
Shipping.....	37 lbs.	38 $\frac{1}{2}$ lbs.
Net (with spade handle).....	26 $\frac{1}{4}$ lbs.	27 $\frac{1}{4}$ lbs.
Shipping.....	37 lbs.	32 lbs.
Overall length (with breast plate).....	17 $\frac{1}{2}$ "	17 $\frac{1}{2}$ "
(with spade handle).....	19 $\frac{3}{8}$ "	19 $\frac{3}{8}$ "
Cat. No. (specify voltage).....	305	474
Price, Complete.....	\$150.00	\$160.00

Standard Equipment—3-conductor cable and plug; 20-amp. dust-proof switch, threaded spindle; breast plate; detachable pipe handle.

Standard Voltage—115; also available for 220 or 240 volts.

†Spade Handle supplied in place of Breast Plate, at no extra charge.

HOLE SAWS

Cut clean, round holes in steel, cast iron, sheet metal, wood or any material a hack saw will cut. Available in three types: fine-tooth for sheet metal, steel and all thin materials; coarse-tooth for cast iron, wood, fibre and all thick materials; both of highest quality tungsten steel, and a new HIGH-SPEED Hole Saw for hard alloys and production work.



SAW SIZE OUTSIDE DIAM.	FINE-TOOTH SAW CAT. No.	COARSE-TOOTH SAW CAT. No.	PRICE EACH (SAW ONLY WITHOUT MANDREL)	HIGH SPEED SAW	
				Cat. No.	Price
$\frac{5}{8}$ "	23051		\$1.80**		
$\frac{3}{4}$ "	16882†	14906†	.60	21747†	\$1.40
$\frac{1}{2}$ "	16883†	14908†	.60	21748†	1.40
$\frac{1}{4}$ "	21382†		.60	21749†	1.40
1"	16884†	14910†	.60	21771†	1.40
1 $\frac{1}{4}$ "	21875†	22953†	.80	22809†	1.40
1 $\frac{1}{2}$ "	16885†	14912†	.80	21772†	1.40
1 $\frac{3}{4}$ "	17678†	17679†	.80	21773†	1.40
1 $\frac{1}{2}$ "	16886*	14911*	.80	21781*	1.40
1 $\frac{3}{4}$ "	16887*	14913*	.80	21782*	1.40
1 $\frac{1}{2}$ "	16888*	14914*	.80	21783*	1.40
1 $\frac{3}{4}$ "	16889*	14915*	.95	21784*	1.40
1 $\frac{1}{2}$ "	16890*	14916*	.95	21785*	1.85
1 $\frac{3}{4}$ "	16891*	14917*	.95	21786*	1.85
2"	16892†	14918†	1.10	21787†	1.85
2 $\frac{1}{4}$ "	16893†	14919†	1.10	21788†	2.50
2 $\frac{1}{2}$ "	16894†	14920†	1.10	21789†	2.50
2 $\frac{3}{4}$ "	16895†	14922†	1.30	21790†	2.50
2 $\frac{1}{2}$ "	16896†	14921†	1.30	21791†	2.50
2 $\frac{3}{4}$ "	16897†	14923†	1.30	21792†	2.50
2 $\frac{1}{2}$ "	16898†	14924†	1.40	21793†	2.50
2 $\frac{3}{4}$ "	16899†	14925†	1.40	21794†	2.50
2 $\frac{1}{2}$ "	16900†	14927†	1.40	21795†	2.50
3"	16901†	14926†	1.55	21796†	2.50
3 $\frac{1}{8}$ "	16902†	14930†	1.55	21797†	2.50
3 $\frac{1}{4}$ "	16903†	14929†	1.55	21798†	2.50
3 $\frac{3}{8}$ "		24172†	1.55		
3 $\frac{1}{2}$ "	16904†	14928†	1.55	21799†	2.50
3 $\frac{3}{8}$ "		24173†	1.85		
3 $\frac{1}{2}$ "		24174†	1.85		
3 $\frac{3}{8}$ "		24175†	1.85		
4"	16905†	14932†	1.85	21800†	4.25

MANDRELS FOR $\frac{1}{4}$ ", $\frac{5}{16}$ " AND $\frac{3}{8}$ " DRILLS

22181 Mandrel with Pilot Drill (for $\frac{3}{8}$ " to $1\frac{1}{4}$ " Saws).....	\$1.80
22182 Mandrel with Pilot Drill (for $1\frac{1}{4}$ " to $1\frac{3}{4}$ " Saws).....	1.85
22192 $\frac{1}{4}$ " Pilot Drill, only for above mandrels.....	.45
23050 $\frac{5}{16}$ " Pilot Drill (for $\frac{5}{16}$ " Hole Saw only).....	.35

**No. 23051 Hole Saw has a built-in Mandrel; no separate Mandrel supplied.

MANDRELS FOR $\frac{1}{2}$ " AND LARGER DRILLS

14903 Mandrel with Pilot Drill (for $\frac{3}{4}$ " to $1\frac{1}{4}$ " Saws).....	\$1.80
14904 Mandrel with Pilot Drill (for $1\frac{1}{4}$ " to $1\frac{3}{4}$ " Saws).....	1.85
18028 Mandrel with Pilot Drill (for 2" to 4" Saws).....	2.35
14935 $\frac{1}{4}$ " Pilot Drill only, for above mandrels.....	.45

SPECIAL HOLE-SAWS

Special Tungsten Hole Saws, with extra-coarse tooth arrangement at 50c higher than standard prices up to $1\frac{1}{2}$ ", and \$1.00 higher in 2" to 4" sizes. **SPECIAL DEPTH HOLE SAWS**—For home insulation and other uses requiring extra depth, the following special coarse-tooth Tungsten Hole Saws, with $1\frac{1}{4}$ " depth-of-cut, and special Mandrel, are available.

No. 24576 2 $\frac{1}{2}$ " Special Hole Saw.....	\$3.10
No. 18635 3" Special Hole Saw.....	3.10
No. 24578 Special Mandrel with pilot drill for above Hole Saws.....	2.35
No. 24577 Pilot drill for No. 24578 Mandrel.....	.45

RIGHT ANGLE DRILLING ATTACHMENT

Enables operator to reach out-of-the-way places in work on joists, etc. A handy attachment for all types of contracting jobs and electrical installations. Equipped with 3-jaw Geared Chuck, $\frac{1}{2}$ " capacity. (All are Type "B").

No. 23574 For $\frac{1}{2}$ " Junior (B), $\frac{1}{2}$ " Special.....	\$42.00
No. 17819 For $\frac{1}{2}$ " Standard and $\frac{1}{2}$ " Utility.....	42.00
No. 17820 For $\frac{1}{2}$ " H.D. (A and B) and $\frac{3}{8}$ " Standard.....	42.00

WHEEL ARBORS

Adapt $\frac{1}{4}$ " to $\frac{1}{2}$ " Drills to light grinding and wire brushing, by holding wheels in chuck of drill. Body of arbor is $\frac{1}{2}$ " diameter and will take 3" and 4" wheels. No. 3071 $\frac{1}{4}$ " Drill Arbor ($\frac{1}{2}$ " diam.; $\frac{1}{4}$ " shank).....\$.95
No. 8449 $\frac{1}{2}$ " Drill Arbor ($\frac{1}{2}$ " diam.; $\frac{1}{2}$ " shank).....1.95

SANDING PAD ARBOR

No. 23041 Arbor for 5" Sanding Pad; fits $\frac{1}{4}$ ", $\frac{5}{16}$ ", $\frac{3}{8}$ " and $\frac{1}{2}$ " Drills ($\frac{3}{8}$ "-11 thr., $\frac{1}{4}$ " shank).....\$.85

Black & Decker



"ELECTRIC TOOL HEADQUARTERS"

NEW 1/4" TAPGUN



This is the latest, improved version of the popular B&D Tapgun. Automatic reversing mechanism backs tap out of threaded hole at high speed when operator pulls backward—no reversing switch is needed. New Tapping Chuck (Jacobs No. 421-01) with 2 collets and Removable Side Handle are standard equipment. Other improvements include a more comfortable end handle and removable commutator and brush inspection plates.

SPECIFICATIONS

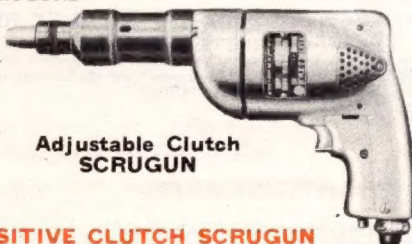
Tapping Capacity: In mild steel..... 1/4"
In Cast Iron..... 3/16"
In brass or aluminum..... 1/2"
Weight: Net..... 4 1/4 lbs.
Shipping..... 6 1/2 lbs.
Overall Length: 10 3/4" (including tap chuck)
No-load spindle speed: Tapping—400 RPM; Reversing—525 RPM
Standard Equipment—Jacobs tap chuck with two collets (0" to 1/4" and 1/4" to .381), 3-conductor cable and plug, "universal" motor.
Standard Voltages—115 or 220. On special order 125 or 240 volts.
Catalog No. 586 (specify voltage)
Price, complete..... \$105.00

No. 12 SCRUGUNS

Boasting a superlative record for speeding up all types of fastener assembly work, these late model Scruguns have—(1) Increased motor power, (2) A handle shaped for more finger room, (3) A removable cover for convenient inspection of commutator and brushes, and (4) Cart-ridge-type brush holders to facilitate brush replacement. The SCRUGUNS are offered in Positive Clutch models for "free-hand" driving, and in Adjustable Clutch models for driving each fastener automatically to a predetermined tightness.



Positive Clutch
SCRUGUN



Adjustable Clutch
SCRUGUN

No. 12 POSITIVE CLUTCH SCRUGUN

In Positive Clutch Scruguns the spindle idles to permit engaging the fastener. Operating pressure closes the clutch and the tool keeps driving until the resistance of the fastener overcomes hand pressure... operator controls tightness by amount of pressure applied. Ideal for portable "free-hand" driving.

Capacity: Wood Screws..... up to No. 12 x 2"
Self-Tapping Screws..... up to 1/4"
Lag Screws..... up to 3/8" x 2"
Machine Screws and Nuts..... up to 1/4" diam.

No-load Standard Speed..... 600 R.P.M.*

Net Weight..... 3 3/4 lbs.; Shipping..... 5 lbs.

Overall Length (including bit)..... 9"

Standard Equipment—3-wire cable and plug; No. 15475 bit with protector, centering and spring sleeves; "universal" motor.

Standard Voltage—115 or 220. On special order 125 or 240 volts.
Cat. No. 402 Standard Unit (illustrated), Price (Specify Voltage)..... \$59.50
Cat. No. 572 Reversing Switch Unit, Price (Specify Voltage)..... 67.00

*Optional speed (no extra charge)—1000 R.P.M.

No. 12 ADJUSTABLE CLUTCH SCRUGUN

Adjustable Clutch Scruguns are the same as Positive Clutch models listed above except for the addition of a secondary clutch. On jobs where uniform tightness of fasteners is desirable (to meet specifications or prevent damage by driving fasteners too tight), the secondary clutch will disengage when the resistance of the fastener overcomes its pre-set spring load. Thus, automatically, each fastener is driven to a pre-determined, uniform tightness regardless of pressure applied.

SPECIFICATIONS

Capacity, Speeds, voltage and standard equipment same as No. 12 Positive Clutch Scrugun.

Net Weight..... 4 lbs.; Shipping..... 5 1/2 lbs.

Overall Length (including bit)..... 10 3/4"
Cat. No. 350 Standard Unit (illustrated), Price (Specify Voltage)..... \$76.00
Cat. No. 573 Reversing Switch Unit, Price (Specify Voltage)..... 83.50

NEW NO. 8 SCRUGUN

This high-powered Center-drive Scrugun is the lightest, most compact tool we have ever built for driving up to No. 8 size screws. It is controlled by 2 springs which permit driving varying sized screws to a uniform degree of tightness. Paddle switch model operates conveniently in either a horizontal or suspended position—turns "ON" as operator grasps tool and "OFF" as tool is released. Toggle switch model is suitable for continuous operation. Quality-built for high production service, the No. 8 Scrugun is equipped with ball bearings, heat-treated gears and a "universal" motor built specifically for this tool.



SPECIFICATIONS

Capacity: Wood Screws..... up to No. 8 x 1 1/4"

Machine Screws and Nuts..... up to No. 8

Self-Tapping Screws..... up to No. 8

No-load Spindle Speed..... 3000 R.P.M.

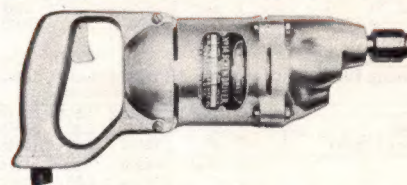
Weight: Net—2 3/4 lbs.; Shipping—5 1/4 lbs.

Standard Equipment—3-conductor cable and plug; No. 13207 bit with centering sleeve; spring sleeve and protector; "universal" motor.

Standard Voltages—115 or 220. Special Order 125 or 240 volts.
Specify voltage when ordering.

Cat. No. 578 (with paddle switch)..... \$92.00
Cat. No. 580 (with paddle switch and reversing switch)..... 99.50
Cat. No. 579 (with toggle switch in end cap)..... 89.00
Cat. No. 581 (with toggle switch and reversing switch)..... 96.50

No. 14 and No. 18 SCREW DRIVERS



Nos. 14 and 18 Screw Drivers are capable of constant production in screw driving operations in metal or wood, nut tightening, boat building, body work, assembling and crating. Have 1/4" hex. socket chuck and can be equipped with reversing switch for disassembly work.

Capacities:	No. 14	No. 18
Wood Screws.....	14 x 2 1/2"	18 x 3 1/4"
Self-tapping Screws.....	3/8" Dia.	3/8" Dia.
Lag Screws.....	1 1/2" x 2"	1 1/2" x 3"
Machine Screws and Nut.....	3/8" Dia.	1/2" Dia.
Standard No-load Speed	500 R.P.M.*	

No. 14 POSITIVE CLUTCH DRIVER

Pin-type clutch permits spindle to idle until bit finds screw slot. Throws out when operating pressure is released.

Net weight, 6 1/2 lbs.; overall length, 13 1/4", shipping weight, 9 lbs.
Price, complete, specify voltage—(Cat. No. 53)..... \$72.00
Reversing Switch Unit—(Cat. No. 563)..... \$79.50
*Special Speeds—750, 1000 or 1600 R.P.M..... \$2.50 extra

No. 14 ADJUSTABLE CLUTCH DRIVER

Adjustable clutch adapts driving torque to specific operation, insuring uniform results. Spindle idles until operating pressure is applied.

Net weight, 8 lbs.; overall length, 15 1/4"; shipping weight, 12 lbs.
Price, complete, specify voltage—(Cat. No. 169)..... \$ 99.00
Reversing Switch Unit—(Cat. No. 564)..... 106.50
*Special Speeds—750, 1000 or 1600 R.P.M..... \$2.50 extra

No. 18 POSITIVE CLUTCH DRIVER

Positive clutch permits spindle to idle until operating pressure engages clutch jaws. Kicks out when pressure is released.

Net weight, 9 lbs.; overall length, 14 1/4"; shipping weight, 12 lbs.
Price, complete, specify voltage—(Cat. No. 54)..... \$82.00
Reversing Switch Unit—(Cat. No. 566)..... 89.50
*Special Speeds—750, 1000 or 1600 R.P.M..... \$2.50 extra

No. 18 ADJUSTABLE CLUTCH DRIVER

Selectivity of adjustable clutch and power of this unit ideal for tough production work. Clutch automatically releases each screw at uniform depth. Spindle idles until pressure is applied.

Net weight, 10 1/2 lbs.; overall length, 17 1/4"; shipping weight, 15 lbs.
Price, complete, specify voltage—(Cat. No. 164)..... \$108.00
Reversing Switch Unit—(Cat. No. 567)..... 115.50
*Special Speeds—750, 1000 or 1600 R.P.M..... \$2.50 extra

90° HEADS ARE AVAILABLE FOR NO. 12 SCRUGUNS, NO. 14; AND NO. 18 DRIVERS. SEE MASTER CATALOG FOR COMPLETE DATA.

Black & Decker



"ELECTRIC TOOL HEADQUARTERS"

SCREW DRIVER BITS

With 1/4" Hex. Shanks—For Scruguns and Torsimeter

For use with these Screw Types and Sizes	Bit Length *	Bit and Stan'd Finder Assem. No.	Price Each	Bit Only No.	Price Each
Nos. 2, 3 Wood, No. 2, 3 Machine	1 1/4"			18051	\$0.60**
No. 2 Sheet Metal, No. 4 Filister	2 3/4"			22396	.85**
Nos. 4, 5, 6 Wood, No. 4, 5, 6 Machine	1 1/4"			13208	.60**
Nos. 4, 5, 6 Sheet Metal	2 3/4"	17690	\$1.60**	17688	.85**
	5 1/4"	22111	2.15	22108	1.40
Nos. 7, 8 Wood, No. 6 Stove; 8 Mach.	1 1/4"			13207	.60**
Nos. 7, 8 Sheet Metal	2 3/4"	13356	1.60**	13353	.80**
No. 10 Filister	5 1/4"	13469	2.15	13470	1.40
Nos. 9, 10, 11 Wood	1 1/4"			15475	.65**
No. 10 Sheet Metal	2 3/4"			23494	1.00**
No. 10 Machine, No. 12 Filister	2 3/4"	18593	1.75**	18594	1.00**
No. 12 Wood, Sheet Metal, Machine	1 1/4"			16772	.85**
1/4" Filister	2 3/4"	21731	1.80**	21730	1.05**

SCREW DRIVER BITS

With 7/16" Hex. Shanks—for No. 14 and No. 18 Drivers

For use with these Screw Types and Sizes	Bit Length *	Bit and Stan'd Finder Assem. No.	Price Each	Bit Only No.	Price Each
Nos. 4, 5, 6 Wood, Nos. 4, 5, 6 Machine	2 1/2"	5345	\$1.55**	5104	\$0.75**
Nos. 4, 5, 6 Sheet Metal	6"	15086	2.50	15050	1.70
Nos. 7, 8 Wood, No. 6 Stove	2 1/2"	5346	1.55**	5106	.75**
Nos. 7, 8 Sheet Metal, No. 8 Machine	6"	15090	2.50	15054	1.70
No. 10 Filister					
Nos. 9, 10, 11 Wood, No. 10 Sheet Metal	2 1/2"	5330	1.55**	5108	.75**
No. 10 Machine (except Filister)	6"	15094	2.50	15058	1.70
No. 12 Filister					
No. 12 Wood, No. 12 Sheet Metal	2 1/2"	5343	1.55**	5110	.75**
No. 12 Machine (except Filister)	6"	15098	2.50	15062	1.70
1/4" Filister					
No. 14 Wood	2 1/2"	5344	1.55**	5112	.75**
No. 14 Sheet Metal	4"	15101	2.30	15065	1.55
1/4" Machine (except Filister)	6"	15102	2.50	15066	1.70
No. 16 Wood	2 1/2"	5329	1.55**	5114	.75**
5/16" Filister	6"	15106	2.50	15070	1.70
No. 18 Wood, 3/8" Sheet Metal	2 3/4"	5364	1.95**	5116	.90**
5/16" Machine (except Filister)	2 3/4"	5366	2.40	5118	1.20
No. 20 Wood, 3/8" Filister					
No. 24 Wood, 3/8" Mach. (except Filister)	2 3/4"	5369	2.80	5120	1.45

*All lengths shown are the projecting lengths, from chuck to end of bit; they do not indicate overall lengths.

**QUANTITY PRICES—Standard Bits and Bit-Finder Assemblies in this group are packed and stocked in boxes of six. We recommend ordering in standard packages or multiples thereof and offer special quantity prices which apply on designated quantities, all of one size only.

†Used with Scrugun only.

‡Used with Torsimeter and 90° heads.

One	In Box of Six, Each	In 1/2-Gross or More, Each
\$.60	\$.55	\$.50
.65	.60	.55
.75	.70	.65
.80	.75	.70
.85	.80	.75
.90	.85	.80
1.00	.95	.90
1.05	1.00	.95
1.55	1.50	1.45
1.60	1.55	1.50
1.75	1.70	1.65
1.80	1.75	1.70
1.95	1.90	1.85

SCREW DRIVER BITS FOR PHILLIPS HEAD SCREWS

FOR SCRUGUN, TORSIMETER, 14 AND 18 SCREW DRIVERS



A special bit is required for driving the Phillips head screw, which has a cross form slot instead of the conventional slot and four different slot sizes designated as Nos. 1, 2, 3 and 4.

Slot Size	Cat. No.	Price Each	Box of 6**	1/2 Gross Lot**
No. 1	17922*	\$.70	\$.65	\$.55
No. 1	18938†	.90	.85	.75
No. 2	17923*	.70	.65	.55
No. 2	17924†	.90	.85	.75
No. 3	21366*	.70	.65	.55
No. 3	17925†	.90	.85	.75
No. 4	17926†	.90	.85	.75

*For Scruguns and Torsimeter.

†For Nos. 14 and 18 Screw Drivers.

**Quantity prices apply only on designated quantities of one size.

BIT EXTENSIONS

Screw Driver Bit Extensions are available in various lengths, with 1/4" or 7/16" shank to fit Torsimeter, Scrugun or Screw Driver Chuck, and a chuck socket to take standard bits and socket wrenches.

Cat. No.	Length	Shank Size	Price Each	Cat. No.	Length	Shank Size	Price Each
22539	6"	1/4"	\$2.00	14989	6"	7/16"	\$2.00
22323	10"	1/4"	2.10	5288	10"	7/16"	2.40

SOCKET WRENCHES

Size Socket	Drive Opening	Cat. No. Hex. Socket	Price Each	Cat. No. Double Sq.	Price Each
1/4"	1/4"	20512	\$.75	20519	\$.95
1/2"	1/2"	20513	.75		
3/8"	3/8"	20514	.75	20520	.95
1 1/8"	1 1/8"	20515	.75		
3/4"	3/4"	20516	.75	20522	.95
1 1/4"	1 1/4"	20517	.75	20546	.95
1 1/2"	1 1/2"	20518	.80	22915	1.00
1 3/4"	1 3/4"	22762	.85	22763	1.10
2"	2"	22764	.85	22765	1.10
2 1/4"	2 1/4"	22766	.85	22767	1.10
2 1/2"	2 1/2"	22768	.85	22769	1.10
2 3/4"	2 3/4"	22770	.85	22771	1.10
3"	3"	22772	.85	22773	1.10
3 1/4"	3 1/4"	22774	.85	22775	1.10
3 1/2"	3 1/2"	22776	.85	22777	1.10
3 3/4"	3 3/4"	22778	1.10	22779	1.45
4"	4"	22780	1.10	22781	1.45
4 1/4"	4 1/4"	22782	1.10	22783	1.65
4 1/2"	4 1/2"	22784	1.40		
1"	1"	22786	1.50	22787	1.90

SHANKS

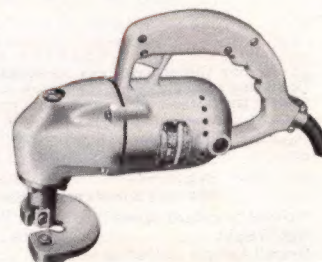
Shank Size	Drive Sq. Size	Overall Length	Catalog Number	Price Each
1/4"	1/4"	2"	20510	\$1.10
1/4"	1/4"	6"	20511	1.65
3/8"	3/8"	2 3/4"	22792	1.65
1/2"	1/2"	5"	22793	2.00
3/4"	3/4"	2 3/4"	22794	2.20
1"	1"	5"	22795	2.50

SIZE 10 BALANCE REEL

For counterbalancing tools over work benches or production lines. Reduces job fatigue and prevents accidental dropping. Range—0 to 10 lbs.; Maximum Overall Extension—6 foot 6 inches; Weight 6 1/2 lbs. (shipping weight 7 1/2 lbs.) No. 33465.....\$24.50

PORTO-SHEARS

The Porto-Shear will cut all types of sheet metal quickly, easily, and accurately. It is also used successfully for cutting thin sections of laminated wood and sheet plastics with slight changes in blade contours. Porto-Shears cut to small radii, and easily follow a straight or irregular pattern line—because the cutting blade is always visible. Porto-Shears easily cut to rated capacity in steel and galvanized iron; about one gage thinner in Mone and stainless; and 50% above rating in copper, aluminum, lead, non-ferrous metals.



	No. 16 Gage Porto-Shear	No. 12 Gage Porto-Shear
Capacity, in steel, (U. S. Std.).....	16-gage	12-gage
Cutting Speed, (Strokes per min.).....	2500	2000
Minimum Cutting Radius.....	3/4"	1 1/2"
Weight: Net.....	8 1/2 lbs.	11 lbs.
Shipping.....	10 1/2 lbs.	13 1/2 lbs.
Overall length.....	12 1/2"	12 1/2"
Cat. No., (specify voltage).....	259	507
Price, complete.....	\$90.00	\$135.00

Standard Voltage—115 or 220. On special order, 125 or 240 volts.

SHEAR BLADE SHARPENER

Sharpen the blades on 18 Gage, 16 Gage or 12 Gage Porto-Shears with this one new device. Simple instructions make it practically impossible to grind incorrect angles. Operates on Bench Grinder tool rest.

No. 33202 Shear Blade Sharpener.....\$3.25

REPLACEMENT BLADE KITS

No. 32105 For 18 Gage and 16 Gage Units.....\$4.35
No. 33088 For 12 Gage Unit.....5.75

Black & Decker



"ELECTRIC TOOL HEADQUARTERS"

PORTABLE ELECTRIC SANDERS

Electric Sanders are versatile surfacing tools, used with a wide variety of attachments for sanding, grinding, wire brushing, rubbing and planing operations on metal, wood, stone, tile, concrete and many other surfaces.

These Sanders are fully powered with "universal" motors; perfectly balanced, with reversible side handles for right or left hand use; spiral bevel gears of heat-treated alloy are matched and lapped; ball-bearings are grease-sealed.

Standard Voltage—115 or 220. On special order also 125 or 240 volts.

7" SPECIAL SANDER (EQUIPPED WITH SPINDLE LOCK)

A light, well-balance Sander for intermittent service on sanding, grinding, wire brushing and rubbing jobs. Switch and bearings are sealed against dust and dirt. Equipped with spindle-locking pin for changing sanding discs and other attachments. Has heat treated gears and grease-sealed ball bearings throughout.

Diam. of Sanding Disc 7"; Spindle $\frac{3}{8}$ " diam.; 11 thread, right hand.
No-load Spindle Speed.....3500 R.P.M.
Weight: Net.....8 lb.; Shipping.....10lb.
Overall length (not including pad).....7 $\frac{3}{8}$ "

Catalog No. 91 (specify voltage)
Price, complete.....\$53.00

No. 34272 $\frac{1}{4}$ " Chuck for 7" Sander (Jacobs No. 767).....\$6.00



7" STANDARD SANDER (EQUIPPED WITH SPINDLE LOCK)

Amplly powered and constructed for constant production service on all types of metal and wood surfacing.

Diameter of disc.....7"
No-load speed.....4200 R.P.M.
Weight: Net.....12 $\frac{3}{4}$ lbs. Shipping.....17 lbs.
Overall length (not including pad).....17 $\frac{1}{2}$ "
Price, complete, specify voltage—(Cat. No. 92).....\$73.00

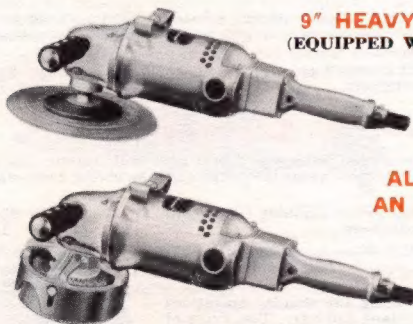
7" HEAVY DUTY SANDER (EQUIPPED WITH SPINDLE LOCK)

Designed to meet the demand for a universal motored sander of superior power for continuous production metal finishing.

Diameter of disc.....7"
No-load speed.....4200 R.P.M.
Weight: Net.....14 $\frac{1}{4}$ lbs. Shipping.....18 lbs.
Overall length (not including pad).....18"
Price, complete, specify voltage—(Cat. No. 93).....\$82.00

9" HEAVY DUTY SANDER (EQUIPPED WITH SPINDLE LOCK)

ALSO PERFECT AS
AN ANGLE GRINDER



A Heavy Duty tool designed for constant production-line use with 9-inch abrasive discs or 6" Saucer Grinding Wheels. New, fast spindle lock for quicker change of pads and abrasive discs. Spiral-bevel gears. Switch and commutator sealed against dust and grit. Bearings also grease-sealed against dust and dirt.

Diameter of disc.....9"
No-load speed.....4000 R.P.M.*
Weight: Net.....18 $\frac{3}{4}$ lbs. Shipping.....25 lbs.
Overall length (not including pad).....19 $\frac{1}{4}$ "
Price, complete, specify voltage—(Cat. No. 433).....\$98.00

*Optional Speed—5000 R.P.M.—No extra cost.

PORTABLE ELECTRIC POLISHERS

7" SPECIAL POLISHER

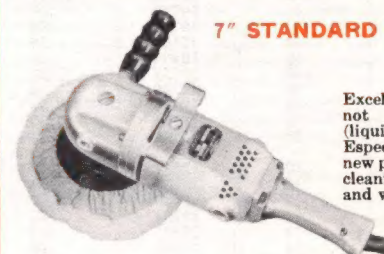
A light-weight Polisher for intermittent service in small shops and garages. Very easy to handle and control. Has spindle locking pin to facilitate the changing of pads and bonnets. Gears are heat treated and grease sealed ball bearings are used throughout.

Weight: Net.....8 lbs. Shipping.....12 lbs.
Pad diameter.....7" Spindle Diameter..... $\frac{3}{8}$ "-11 thread
No-load speed.....2000 R.P.M.
Overall length (not including pad).....7 $\frac{1}{4}$ "

Standard Voltages—115 or 220 Special Order 125 or 240.
Price, complete (specify voltage) (Cat. No. 547).....\$56.00



7" STANDARD ELECTRIC POLISHER



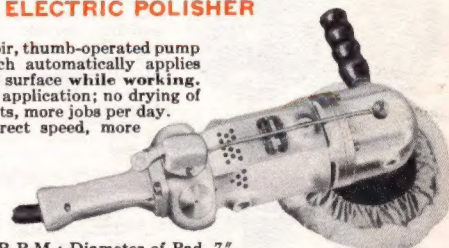
Excellent unit for smaller shops. Does not have automatic-feed feature (liquid must be applied by hand). Especially adapted to rubbing-down new paint and lacquer; for buffing and cleaning all metal and wood surfaces and waxing.

No-load Speed, 1500 R.P.M.; Diameter of Pad, 7".
Net weight, 9 $\frac{1}{4}$ lbs.; overall length, 15 $\frac{1}{2}$ ".
Price, complete, specify voltage—(Cat. No. 96).....\$75.00

Standard Voltage—115 or 220. On special order 125 or 240.

AUTOMATIC ELECTRIC POLISHER

Equipped with reservoir, thumb-operated pump and feeder tube which automatically applies Vitri-Glaze to the car surface while working. No drying for hand application; no drying of liquid. Uniform results, more jobs per day. Increased power, correct speed, more torque, light weight.



No-load Speed, 1500 R.P.M.; Diameter of Pad, 7"
Net weight, 10 $\frac{3}{4}$ lbs.; overall length, 17 $\frac{1}{2}$ ".
Price, complete, specify voltage—(Cat. No. 97).....\$90.00

Standard Voltages—115 or 220. Special Order 125 or 240.

IMPROVED FLEXIBLE BACKING PADS

Molded Rubber Pads listed below have an inside-threaded hub which screws directly on the spindle of all Sanders and Polishers. This hub also has an additional inside-thread to take a new type, outside-thread clamp washer—one only being required to hold all kinds of discs, pads, bonnets, etc. This eliminates the variety of clamp washers which were formerly needed to handle pads of various thicknesses.

No. 33262 7" Standard Molded Rubber Pad with No. 33257 Clamp Washer.....\$3.25
No. 33488 7" Heavy-Duty Molded Rubber Pad with No. 33257 Clamp Washer.....3.75
No. 33487 9" Molded Rubber Pad with No. 33257 Clamp Washer.....6.00
No. 33489 5" Molded Rubber Pad with No. 33257 Clamp Washer.....3.50

REPLACEMENT CLAMP WASHER

New, outside-threaded, screws directly into new 5", 7" and 9" Molded Rubber Pads listed above.

No. 33257 Clamp Washer.....\$.60



WIRE CUP BRUSHES

Made by us for use on Sanders to remove rust, scale and paint; to clean tanks and boat hulls; for cleaning castings and structural steel $\frac{3}{8}$ "-11 thread hub threads on Sander spindle.

No. 18056 4" Wire Cup Brush, for 7" Special and 7" Standard Sander.....\$2.90
No. 24353 5" Wire Cup Brush for 7" Heavy Duty Sander.....3.50
No. 12398 6" Wire Cup Brush for 9" Heavy Duty Sander.....4.05

Black & Decker

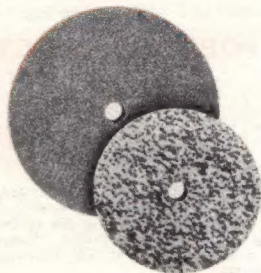


"ELECTRIC TOOL HEADQUARTERS"

SANDING DISCS

Sanding and abrasive discs can be furnished in a variety of grades and grains. Discs designated as "Open Grain" are especially suited for wood sanding (Nos. 16, 24 and 36 for removing paint and varnish); "Closed Grain" discs are for metal work.

Discs packed 25 to a box.



GRADE	7-INCH SANDING DISCS		9 1/8-INCH SANDING DISCS	
	Cat. No.	List Price	Cat. No.	List Price
Closed Grain		Each		Each
16	17815	\$0.58	26458	\$0.77
24	9990	.45	10719	.60
36	9991	.44	10720	.59
50	9992	.42	12153	.55
60	18489	.40	18493	.53
80	10485	.38	10721	.50
100	12145	.38	12149	.50
120	12146	.38	12150	.50
150	12147	.38	12151	.50
180	12148	.38	12152	.50
Open Grain				
16	15134	.58	15137	.77
24	15135	.45	15138	.60
36	15136	.44	15139	.59
50	12011	.42	12131	.55
60	18491	.40	18495	.53
80	12012	.38	12132	.50
120	12013	.38	12133	.50

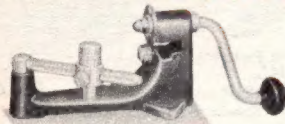
"KOOLFLEX" BACKING PADS



Light-weight, fabric-base, plastic-bonded discs provide greater flexibility, cooler operation and longer life on sanding applications. Used with Moulded Rubber Pad. For maximum flexibility, use one "Kooflex" pad with corresponding size abrasive disc. For "feathering" finish, use No. 31000 "Kooflex" pad with 9" abrasive. For more rigid backing use both sizes of "Kooflex" pads with 9" abrasive.

No. 31000 6 3/4" "Kooflex" Backing Pad.....\$1.65
No. 31001 8 3/4" "Kooflex" Backing Pad.....2.25

ABRASIVE DISC TRIMMER



Facilitates the complete use of abrasive discs, cutting them down to smaller diameters as outer surface is used up. Trimmer has adjustable center hole pilot on a calibrated swinging arm; a cutting wheel mounted on one-piece spindle and crank, and a base which can be screwed to the bench.

No. 21808 Abrasive Disc Trimmer, complete.....\$9.50
No. 21753 Replacement Cutter......45

SAUCER GRINDING WHEEL

For some metal grinding applications, the Sander equipped with a Saucer Grinding Wheel does smoother and faster work than a Portable Grinder. Saucer Wheels have 3/8"-11 thread bushing to fit spindle direct.

No. 24050 4" Saucer Grinding Wheel (for 7" Std. Sander).....\$5.35
No. 23444 5" Saucer Grinding Wheel (for 7" H.D. Sander).....7.50
No. 18039 6" Saucer Grinding Wheel (for 9" H.D. Sander).....10.00
No. 17329 Skirt Wheel Guard for H.D. Sanders.....7.25

CUP GRINDING WHEEL

Use No. 10711 Spindle Extension to attach to Sander.

No. 10663 4" Cup Grinding Wheel (Grade 36-H).....\$2.30
No. 10711 Spindle Extension.....3.15

FEATHER-EDGING ATTACHMENT FOR ALL 7" SANDERS



The new modern way to feather-edge. Uses inexpensive and flexible paper-backed discs which are held by a quick-acting twist-lock plunger. This attachment cuts out practically all hand sanding and feather-edges old finishes in one-half to one-fifth the time of former methods. No. 33493 Feather-Edging Attachment with 2 coarse, 2 medium and 2 fine Sanding Discs.....\$7.50

REPLACEMENT ITEMS

No. 34342 "Twist-Lock" Plunger.....\$1.10
No. 33495 Package of 6 Abrasive Discs (coarse).....1.45
No. 33496 Package of 6 Abrasive Discs (med.).....1.30
No. 33497 Package of 6 Abrasive Discs (fine).....1.30
No. 33998 Felt Pad with Fibre Backing Pad.....1.75

SANDER AND POLISHER ATTACHMENTS AND SUPPLIES

LAMBSWOOL BUFFING PAD AND BONNET

Gives a very high lustre in polishing and waxing.

No. 13086 Lambswool Buffing Pad for Polishers individually boxed, each.....\$1.55
packed 6 to a carton, each.....1.40



No. 13087 Lambswool Buffing Bonnet with Hood and Drawstring—use with Molded Rubber Pad.....2.15

No. 22176 Lambswool Buffing Bonnet—use with new Cushion Pad only, or Molded Rubber Pad with Sponge Rubber Pad. 2.70

No. 22174 7" Sponge-rubber Pad.....1.40

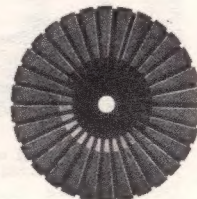
RUBBING PADS

For rubbing down orange peel in lacquer finishes, etc. Attaches direct to flexible pad of Polisher.

No. 20619 7" Pile Fabric Rubbing Pad.....\$1.80
No. 21207 9 1/4" Pile Fabric Rubbing Pad.....2.50
No. 10661 Felt Rubbing Pad for 7" Polisher or 7" Sander.....1.95
No. 10709 Felt Rubbing Pad for 9" Sander.....2.75

CUSHION PAD

Combines molded hard rubber backing and sponge rubber cushioning into a complete flexible pad for use with Lambswool Bonnets. Serrations in the sponge rubber give extra flexibility for getting into tight corners to a complete polishing job. This pad is the result of numerous "on-the-job" tests and will aid materially in giving the best possible results with Vitri-Glaze, polish or wax. The CUSHION PAD threads directly on the Polisher spindle in about 5 seconds.



No. 33982 CUSHION PAD with 33257 Clamp Washer.....\$7.00

VITRI-GLAZE

A special car-body cleaning and buffing compound, chemically and mechanically correct for use with Polishers. Cleans, burnishes and seals the surface in one quick, easy operation, leaving a hard, glazed surface with pores sealed against oxidation and corrosion. Use Heavy-Duty Vitri-Glaze for cars heavily coated with road scum, or with pigment deterioration. Standard Duty Vitri-Glaze gives best results on new cars or car surfaces in relatively good condition.

No. 33363 Heavy-Duty Vitri-Glaze.....per gal. \$2.75
Case of six 1-gallon cans.....2.45
No. 33364 Standard Duty Vitri-Glaze.....per gal. 2.75
Case of six 1-gallon cans.....per gal. 2.45



POWER WAX

Power Wax used with the Polisher produces a hard, brilliant, waxed finish. Ideal for new or newly lacquered cars or to give an extra protective coating to cars cleaned with Vitri-Glaze.

No. 31463 1-quart can of Power-Wax.....per qt. \$1.50
Case of six 1-quart containers.....per qt. 1.25

POWER RUBBING COMPOUND

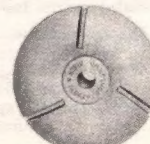
Applied with Polisher equipped with pile fabric pad, will quickly remove "orange peel" and spray pits from newly lacquered surfaces, giving a smoother, more uniform surface.

No. 31459 1-gal. container Power Rubbing Compound.....per gal. \$2.25
Case of six 1-gallon containers.....per gal. 1.95

ROTARY PLANER HEADS

Perform many wood surfacing and shaping operations formerly done with jack-plane and adz. Two types of planer head are supplied; one with rounded surface for deep gouging, the other with flat face for surfacing and semi-finishing. These heads are interchangeable on the spindle of the 7" Heavy-Duty or 9" Heavy Duty Sander. For smoothing and fitting joints in concrete forms; surfacing boat hulls and decks, piers, floors, etc.; beveling and shaping beams and timbers, etc.

No. 14734 5" Gouging Planer Head, complete with blades.....14.50
No. 14735 5" Surfacing Planer Head, complete with blades.....14.50
No. 14733 Replacement Blade, Set of 3.....2.10



Black & Decker



"ELECTRIC TOOL HEADQUARTERS"

ELECTRIC DIE GRINDERS

For die shops, stamping plants, tool rooms; compact, powerful, rugged; equipped with $\frac{1}{4}$ " single purpose chuck adaptable to variety of shaped wheels and burrs.

NEW No. 8 DIE GRINDER

Many years of engineering development are behind this completely new tool, which includes every necessary feature to contribute to precision, portable grinding. These important, new advantages include:

- (1) A new, powerful Black & Decker motor; the smallest in any B&D tool. This permits a net weight of only $2\frac{1}{2}$ lbs. and a main housing diameter of only $2\frac{1}{2}$ ", for convenient and accurate handling.
- (2) A high no-load speed of 30,000 R.P.M.
- (3) Latest-design collet chuck takes mounted points and stones with $\frac{1}{4}$ " shanks.
- (4) Extended spindle housing permits gripping the tool close to the grinding stone for delicate and careful grinding.

Maximum Wheel Diameter..... $1\frac{1}{4}$ "

No-load Spindle Speed.....30,000 R.P.M.

Weight.....Net $2\frac{1}{2}$ lbs.; Shipping.....5 lbs.

Overall Length..... $11\frac{1}{2}$ "

Standard Voltages—115 or 220. Special Order 125 or 240.

Catalog No. 577 (specify voltage)

Price, complete.....\$85.00

No. 21955 Split Sleeve for reducing collet opening to $\frac{1}{8}$ ".....\$1.40



3" DIE GRINDER

Maximum Wheel Size*, $3" \times \frac{1}{2}" \times \frac{3}{8}"$; No-load Speed, 16,000 R.P.M.

Net weight, 7 lbs.; overall length, $17\frac{3}{4}"$; shipping weight $11\frac{1}{4}$ lbs.

Price, with extended end handle—(Cat. No. 499), specify voltage.....\$67.00

*No wheels are supplied as standard equipment with Die Grinders. Wheel Guards, Wheel Arbors and maximum size Grinding Wheels can be furnished at extra cost.



3" PORTABLE GRINDER

Wheel Size, $3" \times \frac{1}{2}" \times \frac{3}{8}"$; No-load speed, 16,000 R.P.M.

Net weight, 8 lbs.; overall length, $16\frac{3}{4}"$.

Price, complete, specify voltage—(Cat. No. 395).....\$67.00

Standard Voltage (above units); 115 or 220. On special order 125 or 240 volts.

REPLACEMENT AND EXTRA EQUIPMENT FOR 3" DIE GRINDER AND 3" PORTABLE GRINDER

No. 24317 3" High Speed Bonded Grinding Wheel.....\$1.75

No. 31457 3" Wheel Guard Assembly, complete.....4.00

No. 31456 Clamp Nut......85

No. 24187 $\frac{1}{4}"$ S. A. Chuck with $\frac{1}{8}"$ Reducing Sleeve.....6.50

No. 21955 $\frac{1}{8}"$ Reducing Sleeve only for No. 24187 Chuck.....1.40

HEAVY-DUTY PORTABLE GRINDERS

Complete line with most advanced features. Splined gear mountings, steel inserts for bearings, welded steel wheel guards; dust-sealed commutators and switches; ball-bearings set at spindle ends absorb side thrust; shaped grips and switch handles improve control.

Standard Voltage—115 or 220. On special order 125 or 240 volts.

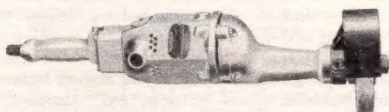


5" PORTABLE GRINDER

Wheel Size, $5" \times \frac{3}{4}" \times \frac{1}{2}"$; No-load Speed, 4500 R.P.M.

Net weight, $15\frac{1}{2}$ lbs.; overall length, $23\frac{1}{4}"$; shipping weight, 21 lbs.

Price, complete, specify voltage—(Cat. No. 60).....\$88.00



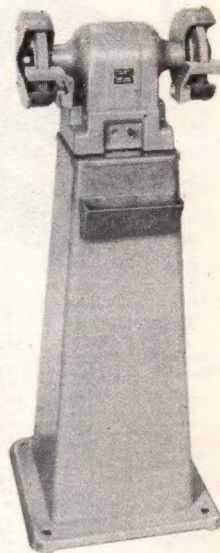
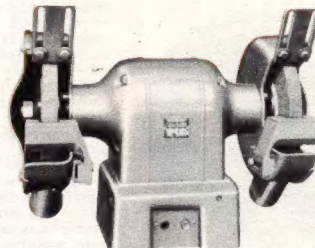
6" PORTABLE GRINDER

Wheel Size, $6" \times 1" \times \frac{3}{8}"$; No-load Speed, 3800 R.P.M.

Net weight, 20 lbs.; overall length, 25"; shipping weight, 26 lbs.

Price, complete, specify voltage—(Cat. No. 61).....\$100.00

BENCH GRINDERS



Equipped with ball bearings, protected from dust and set to minimize spindle vibration; tool rests adjustable for wheel wear; strong wheel guards, completely enclosed; wide sturdy base with rubber feet; adjustable spark shields on 8" and 10" Grinders. Motors are not universal; supplied only for voltages and currents listed under each unit. Spindle no-load speeds are: 25 cycle, 1500 R.P.M.; 50 cycle, 3000 R.P.M.; 60 cycle, 3600 R.P.M.; (except 10" unit, which is 50 cycle, 1500 R.P.M.; 60 cycle, 1800 R.P.M.).

No. 30700 Pedestal for 6" and 8" Grinders.....\$31.00

No. 30835 Pedestal for 10" Grinder.....40.00

NEW 6" HEAVY-DUTY BENCH GRINDER

Ball-Bearing equipped.

Wheel size, $6" \times \frac{3}{4}" \times \frac{1}{2}"$.

Net weight, 27 lbs.

Shipping weight, 30 lbs.

Voltages.....115 or 220

Phase.....1

Cycle: 60 (3600 R.P.M.), 50 (3000 R.P.M.) or 25 (1500 R.P.M.)

Not available for Direct Current.

Price, complete, specify voltage and cycle.....\$59.50

8" HEAVY DUTY BALL BEARING BENCH GRINDER

Wheel size, $8" \times \frac{3}{4}" \times \frac{1}{2}"$. Net weight, 71 lbs. Shipping, 75 lbs.

Motor Rating, $\frac{3}{4}$ H.P.

Standard Equipment—2 Grinding Wheels; 1 med., 1 fine.

Motor not universal. Not available for direct current. Supplied in standard

voltages and currents as follows:

Voltage.....115 or 220.....220 or 440

Phase.....1.....3

Cycle.....50-60.....50-60

Price, specify voltage, phase and cycle.....\$105.00

10" BALL-BEARING BENCH GRINDER

Standard Equipment—2 Grinding Wheels, 1 med.; 1 coarse.

Motor, not Universal. Not available for direct current.

Wheel Size, $10" \times 1" \times \frac{3}{4}"$.

Net Weight 110, Shipping 75 lbs.

Motor Rating, 1 H.P., ($\frac{3}{4}$ H.P. for 25 cycle).

Supplied in standard voltages and current as follows:

Voltage.....115, 220.....220, 440

Phase.....1.....3

Cycle.....25, 50-60.....50-60

Price, specify voltage, phase and cycle.....\$148.00

ILLUMINATED EYE SHIELDS

Cat. No. 30050 An assembly of a pair of 115 volt Shields, to be connected to and operated by the 115 volt Bench Grinder switch.....\$21.00

Cat. No. 30142 An assembly of a pair of 115 volt Shields, with cord, plug and switch, operated independently of the Bench Grinder switch.....\$22.00

Cat. No. 30144 An assembly of a single 115 volt Shield, with cord, plug and switch, operated independently of the Bench Grinder switch.....\$11.50

NON-ILLUMINATED EYE SHIELDS

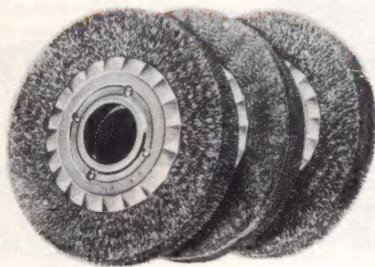
No. 34575 One $3\frac{1}{4}" \times 5\frac{1}{4}"$ Eye Shield complete with glass, bracket and bolts.....\$3.00

Black & Decker



"ELECTRIC TOOL HEADQUARTERS"

WHIRLWIND WIRE WHEEL BRUSHES



WHIRLWIND wire wheel brushes give you more brush for your money. More wire per section—closely packed—for long life on heavy duty work. More quality—highest grades of wire—carefully selected and tested. More variety of sizes and types—one-, two- or three-sections—three wire sizes—six diameters—interchangeable arbor hole adaptors—fit any arbor or spindle.

.014" WIRE DIAMETER SIZE

BRUSH DIAM.	NO. OF SECTS.	BRUSH WIDTH		ARBOR ADAPTOR*	CATALOG NUMBER	PRICE EACH*
		Hub	Face			
4"	1	$\frac{1}{16}$ "	$\frac{5}{8}$ "	$\frac{1}{2}$ "	23200	\$1.10
	2	$\frac{11}{16}$ "	$\frac{1}{2}$ "		23201	1.35
	3	1"	$1\frac{1}{8}$ "		21397	1.80
6"	1	$\frac{1}{16}$ "	$\frac{3}{4}$ "	$\frac{1}{2}$ "	23202	1.30
	2	$\frac{11}{16}$ "	1"		23203	1.90
	3	1"	$1\frac{1}{8}$ "		21401	2.55
7"	1	$\frac{1}{16}$ "	$\frac{3}{4}$ "	$\frac{5}{8}$ "	23204	1.90
	2	$\frac{11}{16}$ "	1"		23205	2.65
	3	1"	$1\frac{1}{8}$ "		21411	3.40
8"	1	$\frac{1}{16}$ "	$\frac{3}{4}$ "	$\frac{5}{8}$ "	23206	1.95
	2	$\frac{11}{16}$ "	1"		23207	3.05
	3	1"	$1\frac{1}{8}$ "		21405	4.15
10"	4	$1\frac{5}{16}$ "	$1\frac{3}{4}$ "	$\frac{3}{4}$ "	21407	6.85
12"	4	$1\frac{3}{8}$ "	$2\frac{3}{4}$ "	$1\frac{1}{4}$ "	21409	8.00

.0118" WIRE DIAMETER SIZE

4"	1	$\frac{1}{16}$ "	$\frac{5}{8}$ "	$\frac{1}{2}$ "	27000	\$1.10
	2	$\frac{11}{16}$ "	$\frac{1}{2}$ "		27001	1.35
	3	1"	$1\frac{1}{8}$ "		27002	1.80
6"	1	$\frac{1}{16}$ "	$\frac{3}{4}$ "	$\frac{1}{2}$ "	27003	1.30
	2	$\frac{11}{16}$ "	1"		27004	1.90
	3	1"	$1\frac{1}{8}$ "		27005	2.55
8"	1	$\frac{1}{16}$ "	$\frac{3}{4}$ "	$\frac{5}{8}$ "	27009	1.95
	2	$\frac{11}{16}$ "	1"		27010	3.05
	3	1"	$1\frac{1}{8}$ "		27011	4.10
10"	4	$1\frac{5}{16}$ "	$1\frac{3}{8}$ "	$\frac{3}{4}$ "	27012	6.85
12"	4	$1\frac{3}{8}$ "	$2\frac{3}{4}$ "	$1\frac{1}{4}$ "	27013	8.00

.005" WIRE DIAMETER SIZE

4"	1	$\frac{1}{16}$ "	$\frac{5}{8}$ "	$\frac{1}{2}$ "	23208	\$1.60
	2	$\frac{11}{16}$ "	$\frac{1}{2}$ "		23209	2.25
	3	1"	$1\frac{1}{8}$ "		23210	3.15
6"	1	$\frac{1}{16}$ "	$\frac{3}{4}$ "	$\frac{1}{2}$ "	23211	2.30
	2	$\frac{11}{16}$ "	1"		23212	4.00
	3	1"	$1\frac{1}{8}$ "		23213	5.65
8"	1	$\frac{1}{16}$ "	$\frac{3}{4}$ "	$\frac{5}{8}$ "	23217	3.05
	2	$\frac{11}{16}$ "	1"		23218	5.00
	3	1"	$1\frac{1}{8}$ "		23219	7.10

*Price includes one set of Arbor Hole Adaptors. The size Adaptor normally furnished is indicated above, but any other size from $\frac{3}{8}$ " to $1\frac{1}{4}$ " can be substituted, if specified in ordering.

GRINDING WHEELS



UNIT	CAT. NO.	PRICE	GRADE*
6" Standard (A) Bench Grinders	18124	\$2.60	A60 N V
	18125	2.60	A36 R V
6" H.D. Bench Grinder (H, K, L and M)	15315	2.90	A36 R V
	15314	2.90	A60 N V
8" Bench Grinder (Type F and G)	18061	5.50	A36 K6V
	18062	5.50	A60 L6V
10" Bench Grinder (Type B, C and D)	10275	8.50	A46 N6V
	10274	8.50	A24 Q6V
Portable Grinders & Die Grinders	20330	1.40	A36 T B
	20329	1.50	A30 S B
	24317	1.75	A36 T B
4" Portable Grinder	6772	1.80	A36 R V
5" Portable Grinder	3042	2.60	A36 R V
6" Portable Grinder	3148	3.40	A36 R V
7" Special Sander	10663	2.30	A36 Q V
7" Standard Sander	24050	5.35	A16 Q B
7" H.D. Sander	23444	7.50	A16 Q B
9" H.D. Sander	18039	10.00	A16 Q B

*Based on Grinding Wheel Mfrs. Assoc. Nomenclature.

No. 95 VACKAR Electric Vacuum Cleaner

A super-powered cleaner for both automotive and industrial use. With both inlet and outlet hose connections, it can be used as a vacuum cleaner or a blower. The No. 95 Vackar makes an ideal all-purpose cleaner for heavy-duty service in garages, super-service stations, and wash-racks.

Its dual service as cleaner and blower also adapts it to all types of industrial cleaning. It is self-contained, rolls easily over rough floors on ball-bearing swivel casters and its 15-foot flexible hose easily reaches out-of-the-way corners.



Dimensions: Height, 28"; Diameter of top, $16\frac{1}{4}$ "; Diameter of Base, $18\frac{1}{4}$ ". Sealed vacuum pull, 65"; Vacuum with 1" orifice, 18".

Net weight, 52 lbs.; Shipping weight, 67 lbs.

Price, complete, specify voltage—(Cat. No. 95).....\$176.00

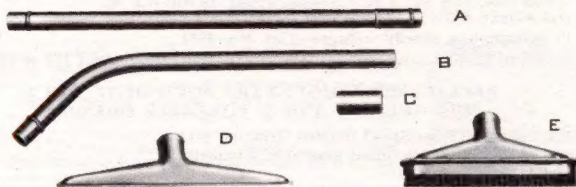
Available for 115 or 220 volta. On special order 125 or 240 volts. Universal Motor.

No. 95 VACKAR REPLACEMENT ATTACHMENTS

No. 33058 15-foot Flexible Hose, Extra Flexible.....	\$17.50
No. 23891 Wide Upholstery Nozzle.....	3.15
No. 23893 Flat Tube Nozzle.....	.55
No. 18186 $6\frac{1}{2}$ " Upholstery Brush.....	1'25

INDUSTRIAL ATTACHMENTS FOR VACKAR

To expand the use of the Vackar to industrial cleaning, a special group of attachments is listed below. The various nozzles fit the long rigid operator's handle, which is in two parts. This handle requires the Coupling Adaptor to fit the hose of the No. 95 Vackar.



No. 23902 15-foot Flexible Hose, Semi-Rigid.....	\$15.50
No. 24834 Operator's Handle—Straight Section* (A).....	5.00
No. 24835 Operator's Handle—Curved Section (B).....	5.00
No. 24836 Coupling Adaptor for No. 95 Vackar (C).....	1.45
No. 24833 14" Floor Nozzle** (D).....	10.85
No. 26083 10" Floor Brush Tool** (E).....	16.00
No. 26600 Replacement Nozzle for No. 26083.....	9.00
No. 26518 Replacement Brush for No. 26083.....	7.25
No. 25913 Extension Coupling (Joins 2 Hose Sections).....	1.55

†Price includes Set of No. 26087 and Set of No. 26083.

*Use with Adaptor No. 24836 for No. 95 Vackar.

**Fit on end of Operator's Handle—Nos. 24834-24835.

GLUE POTS



Especially designed for continuous use where maintenance of constant working temperature is important. Thermostatic control brings the temperature of the glue up to 150° Fahrenheit rapidly, and maintains it at that temperature without variation of more than 5°. Nichrome heating element hermetically sealed and protected against moisture and foreign substance. Ideal for use with book binderies, printing plants, furniture and cabinet factories, toy factories, piano factories, etc. Capacity of glue container—2 quarts. For 115 or 220 volts.

Weight: Net.....14½ lbs. Shipping.....16 lbs.

Price, complete, specify Alternating Current voltage—(Cat. No. 89).....\$27.50

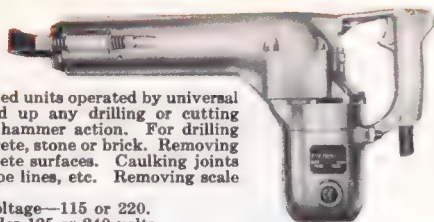
Price, complete, specify Direct Current voltage—(Cat. No. 487).....29.50

Black & Decker



"ELECTRIC TOOL HEADQUARTERS"

PORTABLE ELECTRIC HAMMERS



Completely self-contained units operated by universal motors. Greatly speed up any drilling or cutting operations requiring a hammer action. For drilling and channeling in concrete, stone or brick. Removing form marks from concrete surfaces. Caulking joints and seams in tanks, pipe lines, etc. Removing scale in boilers, tanks, etc.

Standard Voltage—115 or 220.
On special order 125 or 240 volts.

1/2" PORTABLE ELECTRIC HAMMER

Efficient operating range..... 1/4" to 1/2" diameter hole
Number of blows per minute..... 2400
Weight: Net..... 5 3/4 lbs. Shipping..... 15 lbs.
Overall length..... 12 3/4"
Price, complete, specify voltage—(Cat. No. 102)..... \$105.00

3/4" PORTABLE ELECTRIC HAMMER

Efficient operating range..... 1/4" to 3/4" diameter hole
Number of blows per minute..... 2300
Weight: Net..... 10 3/4 lbs. Shipping..... 22 lbs.
Overall length..... 14 3/4"
Price, complete, specify voltage—(Cat. No. 103)..... \$138.00

1 1/8" PORTABLE ELECTRIC HAMMER

Efficient operating range..... 3/4" to 1 1/8" diameter hole
Number of blows per minute..... 2200
Weight: Net..... 19 1/4 lbs. Shipping..... 31 lbs.
Overall length..... 18 1/2"
Price, complete, specify voltage—(Cat. No. 104)..... \$168.00

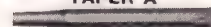
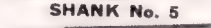
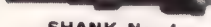
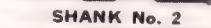
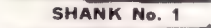
Improved 2" PORTABLE ELECTRIC HAMMER (Type D)

Efficient operating range..... 1 1/4" to 2" diameter hole
Number of blows per minute..... 1950
Weight: Net..... 29 1/4 lbs. Shipping..... 44 lbs.
Overall length..... 20 1/2"
Price, complete, specify voltage—(Cat. No. 105)..... \$215.00

CHUCK WRENCHES and TURNING HANDLES

Cat. No.	Item	Shank No.	Takes Taper	Use With Hammer	Price Each
22587	Chuck Wrench	1	A	1/2" & 3/4"	\$5.00
23806	Chuck Wrench	1	B	1/2" & 3/4"	5.25
22749	Chuck Wrench	2	A	1 1/8" & 2" Type C	5.50
22754	Chuck Wrench	2	B	1 1/8" & 2" Type C	6.25
22510	Chuck Head	2	B	1 1/8" & 2" Type C	5.50
33747	Chuck Head	4	B	2" Type D	5.00
21726	Turning Handle	Fits #2		1 1/8" & 2" Type C	3.00
33745	Turning Handle	Fits #4		2" Type D	2.75

SHANK No. 1



Hammer Lubricating Oil

22926 4 oz. Can.....	.35	18296 for 1/2" Hammer.....	\$11.00
22930 1 Pound Container.....	.70	18389 for 3/4" Hammer.....	13.50
22931 2 Pound Container.....	1.35	21003 for 1 1/8" Hammer.....	16.50
32906 5 Pound Container.....	3.00	18679 for 2" Hammer.....	18.50

DRIFT KEY

Used to remove taper-shank bits from socket of Chuck Wrench.
Cat. No. 7276, for all Chuck Wrenches..... \$.50

TOOL RETAINING SPRINGS

To hold straight-shank tools in nose piece of Hammer.
Cat. No. 10909, for 1/2" and 3/4" Hammers..... \$.20
Cat. No. 21750, for 1 1/8" Hammer..... .25

DUST SHIELDS

Used in over-head drilling to prevent dust from entering nose piece of Hammer.
Cat. No. 17746, for Chuck Wrenches Nos. 22587, 23806 and 22510..... \$.50
Cat. No. 17747, for Chuck Wrenches Nos. 22749 and 22754..... .50

HAMMER TOOLS



STAR DRILLS (X and Y)

For 1/4" to 3/4" Holes (Taper "A" Shank). Use with 1/2" or 3/4" Hammers. Also may be used with 1 1/8" Hammer and Chuck Wrench No. 22749 with risk of excessive bit breakage.

Cat. No.	Point Diam.	Over-all Lgth.	Qty. in box	Price Each	Cat. No.	Point Diam.	Over-all Lgth.	Qty. in box	Price Each
7167	1/4"	5"	6	\$0.85	7162	5/8"	9"	6	\$1.00
7168	3/8"	5"	6	.90	9372	5/8"	18"	1	1.75
7169	1/2"	5"	6	.90	7171	1 1/8"	9"	6	1.20
7161	3/8"	5"	6	.95	7163	3/4"	9"	6	1.25
9364	3/8"	18"	1	1.55	9380	3/4"	18"	1	1.90
7170	3/8"	9"	6	1.00	9382	3/4"	24"	1	2.40

For 1 1/8" to 1 1/2" Holes (Taper "B" Shank). Use with 1 1/8" Hammer. Also may be used with 3/4" Hammer and Wrench 23806; 2" (C) Hammer and Chuck Head 22510; 2" (D) Hammer and Chuck Head 33747.

24673	1 1/8"	9"	6	\$1.20	9390	7/8"	24"	1	\$2.65
23081	3/4"	9"	6	1.25	7173	1 1/8"	9"	6	1.45
23082	3/4"	18"	1	1.95	7096	1"	9"	6	1.45
23083	3/4"	24"	1	2.40	9396	1"	18"	1	2.10
7172	1 1/8"	9"	6	1.25	9398	1"	24"	1	2.65
7097	3/8"	9"	6	1.25	10751	1 1/8"	12"	6	1.85
9388	3/8"	18"	1	2.10	10981	1 1/8"	24"	1	3.00

For 1 1/4" to 2" Holes (No. 4 Shank). Use with 2" (Type D) Hammer only

33757	1 1/4"	18"	1	\$4.20	33762	1 1/4"	30"	1	\$6.00
33758	1 1/4"	30"	1	5.10	33763	1 1/4"	18"	1	5.70
33759	1 1/4"	18"	1	4.75	33764	1 1/4"	30"	1	6.60
33760	1 1/4"	30"	1	5.60	33765	2"	18"	1	6.50
33761	1 1/2"	18"	1	5.10	33766	2"	30"	1	7.20

For 1 1/4" to 2" Holes (No. 2 Shank). For use with former, 2" (Type C) Hammer. Also may be used with 1 1/8" Hammer and Turning Handle 21726 although bits are beyond efficiency range of 1 1/8" Hammer.

21942	1 1/4"	18"	1	\$3.10	21947	1 1/4"	30"	1	\$5.00
21943	1 1/4"	30"	1	3.95	21948	1 1/4"	18"	1	4.35
21944	1 1/4"	18"	1	3.50	21949	1 1/4"	30"	1	5.60
21945	1 1/4"	30"	1	4.65	21950	2"	18"	1	5.00
21946	1 1/2"	18"	1	3.80	21951	2"	30"	1	6.30

COLD CHISELS (E)

Cat. No.	Size	Price	Cat. No.	Size	Price
11108	5/8" x 8"	\$1.65	12446	1 1/4" x 9"	\$2.35
7095	3/8" x 9"	1.90	17314	1 1/8" x 9"	2.50
9405	3/8" x 20"	3.30	17315	2" x 9"	2.60
34857	3/8" x 12"	2.60	12401	1 1/2" x 12"	2.95
33659	3/8" x 20"	3.50	22886	2" x 12"	3.30

SCALING CHISELS (D)

Cat. No.	Size	Price	Cat. No.	Size	Price
11108	5/8" x 8"	\$1.65	12446	1 1/4" x 9"	\$2.35
7095	3/8" x 9"	1.90	17314	1 1/8" x 9"	2.50
9405	3/8" x 20"	3.30	17315	2" x 9"	2.60
34857	3/8" x 12"	2.60	12401	1 1/2" x 12"	2.95
33659	3/8" x 20"	3.50	22886	2" x 12"	3.30

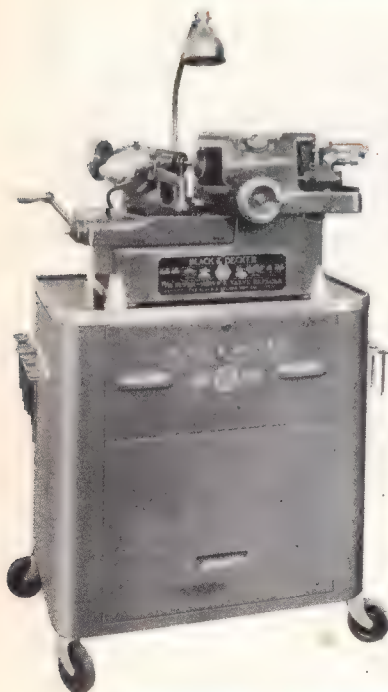
FLAT WOOD CHISEL (F)

Cat. No.	Size	Price	Cat. No.	Size	Price
9039	2" x 9"	\$4.95	34858	2 1/2" x 12"	5.60

MISCELLANEOUS HAMMER TOOLS

11107	10"	Tool Bank (J) 1/2" or 3/4" Hammer.....	\$1.40
7267	12"	Tool Bank (J) 1 1/8" or 2" Hammer (Type C).....	1.70
33666	12"	Tool Bank (J) 2" Hammer (Type D).....	2.00
17232	9"	Seam Tool (H) 1/2" or 3/4" Hammer.....	2.50
9035	9"	Seam Tool (H) 1 1/8" or 2" Hammer (Type C).....	2.60
23804	10"	Bull Point (A) 1/2" or 3/4" Hammer.....	1.80
23805	18"	Bull Point (A) 1/2" or 3/4" Hammer.....	2.50
9036	12"	Bull Point (A) 1 1/8" or 2" Hammer (Type C).....	2.40
9410	20"	Bull Point (A) 1D" or 2" Hammer (Type C).....	3.30
33662	12"	Bull Point (A) 2" Hammer (Type D).....	2.20
33663	20"	Bull Point (A) 2" Hammer (Type D).....	3.30
11624	8"	Bushing Tool (G) 1/2" or 3/4" Hammer.....	6.85
9040	9"	Bushing Tool (G) 1 1/8" or 2" Hammer (Type C).....	6.85
10684		Bushing Tool Head Only.....	5.25
17335	9"	4-Point Sealing Tool (C) 1/2" or 3/4" Hammer.....	2.50
32112	11 1/2" x 1 1/4"	Concrete Slotting Tool (B) 1/2" or 3/4" Hammer.....	3.95
32113	18" x 1 1/2"	Concrete Slotting Tool (B) 1 1/8" or 2" Hammer (C).....	4.75
33670	18"	Concrete Slotting Tool (B) 2" Hammer (Type D).....	4.00

ELECTRIC VALVE SHOPS



A complete valve reconditioning "shop" on wheels. Smart display of precision equipment helps sell reconditioning jobs; sturdy metal cabinet carries all tools necessary for complete, accurate job right at the car. Roomy cabinet top holds Deluxe Super-Service Refacer; large drawer has definite space for each item of Vibro-Centric equipment, including Dressing Stand, Pilots, Stones and Sleeves, plus carbon cleaning brushes, valve guide cleaners and room for other hand tools; lower storage section for Vibro-Centric Driver and other items such as gaskets, drills, etc. Cabinet Dimensions: Height, 35"; width, 35"; depth, 20".

HEAVY-DUTY ELECTRIC VALVE SHOP

- 1 Valve Shop Cabinet.
- 1 No. 550 Deluxe Super-Service Refacer
- 1 Leatherette Refacer Cover.
- 1 Heavy-Duty Driving Unit (55°).
- 3 Valve Guide Cleaners: 21441 ($\frac{5}{16}$ ""); 21445 ($\frac{3}{8}$ ""); 21449 ($\frac{7}{16}$ "").
- 2 Carbon Cleaning Brushes: 21416 (Heavy-Duty); 21417 (Side Flare).
- 1 Standard Stone Dressing Stand—No. 20153.
- 2 Standard Stone Sleeves—No. 22100.
- 5 Self-Centering Pilots
- 2 Hard-Seat Stones
- 7 Soft-Seat Stones
- 1 Finishing Stone

As itemized in Heavy-Duty Universal Vibro-Centric Kit.

Standard Voltages—115 or 220. On special order 125 or 240 volts.

Price, Complete as above (specify voltage)
(Shipping Wt. 293 lbs.)

Catalog No. 552 Heavy-Duty Valve Shop.....\$574.00

Also available for those shops not requiring The Deluxe Refacer with provisions for Valve Stem, Tappet and Rocker Arm grinding operations—
Catalog No. 464 Heavy-Duty Valve Shop with No. 282 Refacer.....\$539.00

HEAVY-DUTY DELUXE ELECTRIC VALVE SHOP

- 1 Valve Shop Cabinet.
- 1 No. 550 Deluxe Super-Service Refacer
- 3 Valve Guide Cleaners: 21441 ($\frac{5}{16}$ ""); 21445 ($\frac{3}{8}$ ""); 21449 ($\frac{7}{16}$ "").
- 2 Carbon Cleaning Brushes: 21416 (Heavy-Duty); 21417 (Side Flare).
- Contents of Heavy-Duty Deluxe Universal Vibro-Centric Kit; including Heavy-Duty Driving Unit, Heavy-Duty Dressing Stand, 2 Ball Bearing Stone Sleeves, 8 Self-Centering Pilots, 14 Stones, Pilot Turning Wrench.

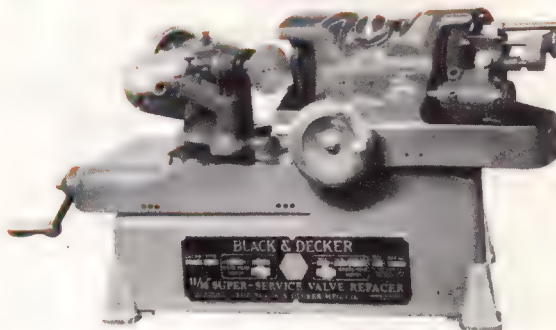
Standard Voltages—115 or 220. On special order 125 or 240 volts.

Price, Complete as above (specify voltage)
(Shipping Wt. 308 lbs.)

Catalog No. 554 Heavy-Duty Deluxe Valve Shop.....\$647.00

Also available for those shops not requiring the Deluxe Refacer with provisions for Valve Stem, Tappet and Rocker Arm grinding operations.
Catalog No. 340 Heavy-Duty Deluxe Valve Shop with No. 282 Refacer.....\$612.00
Price, Valve Shop Cabinet only (Cat. No. 31363).....\$ 90.00

DELUXE SUPER-SERVICE VALVE REFACTOR



With recent improvements this DELUXE, precision-built machine offers ACCURACY, SPEED and OPERATING SMOOTHNESS that is better than ever. It grinds perfect finishes on valve faces like "clockwork".

Two Black & Decker "universal" motors independently drive the collet and wheel spindles for abundant, smooth power. Coolant pump is mounted on the wheel-head motor with one valve directing the coolant to either wheel.

Examine the many other exclusive features listed below and let this "buy" in quality equipment increase your business and pay for itself out of savings.

FEATURES

- $\frac{5}{16}$ " to $\frac{11}{16}$ " Valve Stem Capacity.
- 0° to 90° Valve Angle Adjustment—traverse grind at any angle.
- Up to 4" Valve Head Capacity.
- Hypoid gears for smoothest finish.
- Wet grinding at both valve and attachment wheels.
- Universal wheel dresser.
- One valve to feed coolant to either wheel.
- 1-gallon coolant tank.
- 4 point bearing suspension on both work and wheel tables.
- Bearing adjustment on feed screws with automatic end play take-up.
- Quick clamping collet.

SPECIFICATIONS

Equipped with 2 Collets, (1) $\frac{5}{16}$ " to $\frac{3}{8}$ " (2) $\frac{1}{2}$ " to $\frac{11}{16}$ ".
Valve Head Capacity.....up to 4". Angle Adjustment.....0° to 90°.
Weight: Net.....109 lbs. Shipping.....135 lbs.
Standard Equipment—2 "universal" motors (hypoid gear drive on work head, pulley and V-belt on wheel head), 1-gal. coolant tank, universal wheel dresser with diamond, 5" Grinding wheel, 4" grinding wheel, attachment, for grinding valve stems, tappets or rocker arms, coolant regulating valve with tubes, Allen wrench, grinding wheel coolant, hypoid oil, and leatherette cover.
Standard Voltage—115 or 220. On special order 125 or 240 volts.

Catalog No. 550 $\frac{11}{16}$ " Deluxe Super-Service Valve Refacer.....\$360.00

Micrometer Valve Stem and Rocker Arm Grinding Attachment, standard equipment with No. 550 Refacer, is detailed at top of next page.

For those shops which do not require a complete machine for all valve grinding operations, a Super Service Refacer is available without the Valve Stem, Tappet and Rocker Arm Grinding equipment.
Net Weight 92 lbs; Shipping 118 lbs.

Catalog No. 282 $\frac{11}{16}$ " Super Service Refacer.....\$325.00

HUDSON TAPPET GRINDING ATTACHMENT

Used with No. 34818 Micrometer Valve Stem and Rocker Arm Grinding Attachment. Assembles to rocker arm set-up in place of cone clamp.

No. 34219 Hudson Tappet Grinding Attachment.....\$5.00

REFACTOR REPLACEMENT and ACCESSORY EQUIPMENT

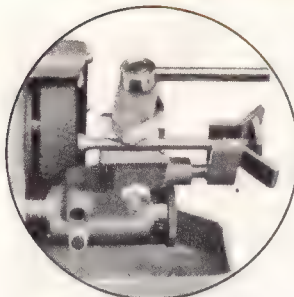
- No. 20939 4" Recessed Wheel for Valve Stem, Tappet and Rocker Arm Grinding.....\$ 2.65
- No. 18325 Standard Collet ($\frac{1}{2}$ "— $\frac{3}{4}$ " capacity).....8.75
- No. 15200 Standard Collet ($\frac{1}{2}$ " to $\frac{11}{16}$ " capacity).....11.00
- No. 26060 Special Collet for short valve stems ($\frac{1}{4}$ " to $\frac{1}{2}$ " capacity).....9.00
- No. 17745 Special Collet for short valve stems ($\frac{1}{2}$ "— $\frac{11}{16}$ " capacity).....11.00
- No. 32742 Cutter-type Wheel Dresser—for Valve Stem Grinding.....4.15
- No. 5574 Diamond and Nib for Wheel Dresser.....3.85
- No. 20380 9-oz. Can Grinding Wheel Coolant......55
- No. 22946 Pint Can Grinding Wheel Coolant......75
- No. 22947 Quart Can Grinding Wheel Coolant.....1.20
- No. 22173 Adjustable, "goose-neck" lamp with Socket, Switch, etc.....7.25
- No. 34976 Hypoid Oil, 9 oz. can......65
- No. 34253 Grinding Oil—1 gal.....1.75
- No. 11462 Pin Wrench for tightening Refacer Workhead......30
- No. 34131 Standard 5" Wheel for refacing valves.....5.25
- No. 34135 V-Belt for Wheel Motor.....1.25
- No. 34395 Leatherette Refacer Cover.....3.85

Black & Decker



ELECTRIC TOOL HEADQUARTERS

NEW MICROMETER VALVE STEM AND ROCKER ARM GRINDING ATTACHMENT (Standard Equipment with Nos. 552 and 554 Valve Shops and No. 550 Refacer)

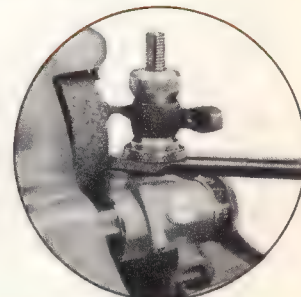


This New Attachment assembles to the end of the wheelhead spindle and permits:
(1) grinding valve stems to obtain exact tappet clearance on Ford type valves,
(2) squares all other valve stems, (3) grinds and trues tappets, (4) grinds and restores correct radius to automotive rocker arms.

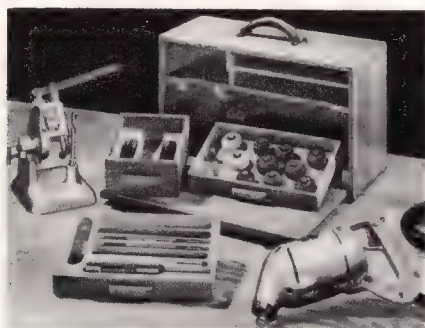
The complete attachment consists of:

- (1) A micrometer feed, calibrated in thousandths, mounted on a machined bar.
- (2) A 4" special recessed wheel, trued across the flat face.
- (3) A "universal" V-block and QUICK-CLAMP, with adjustable V-stop, adapted to varying head sizes, stem lengths. The QUICK-CLAMP also holds tappets for grinding and truing, and holds the diamond point* for dressing the wheel.
- (4) A "universal" depth gage with correct sizes of valve head and port bushings for all Ford V-8, six- and four-cylinder engines.
- (5) A U-shaped adjustable stop permits grinding tappets to same length. A double cone clamp, adjustable to rocker arm bore, mounted on adjustable arm.

Catalog No. 34818, Complete Attachment.....\$61.00
*Use diamond point supplied with Refacer.



"VIBRO-CENTRIC"

REG. U. S. PAT. OFF.


METHOD KITS

For the convenience of Vibro-Centric users, Vibro-Centric Valve Seat Grinders and accessories are arranged in several complete Kit assortments, each packed in a sturdy attractive kit box.

HEAVY-DUTY UNIVERSAL KIT

No. 456 HEAVY-DUTY BASIC KIT

Contains basic items on which to build complete equipment for general valve reconditioning work. Includes: 1 Heavy-Duty Vibro-Centric Driver, 1 Standard Stone Dressing Stand, 2 Standard Stone Sleeves and 1 Universal Kit Box.

Price, complete, specify voltage—(Cat. No. 456).....\$103.00

No. 447 HEAVY-DUTY UNIVERSAL KIT

Includes: 1 Heavy-Duty Vibro-Centric Driver; 1 Standard Dressing Stand; 2 Standard Stone Sleeves; 5 Self-Centering Pilots (popular sizes); 10 Vibro-Centric Grinding Stones (popular sizes); 1 Universal Kit Box.

Price, complete, specify voltage—(Cat. No. 447).....\$140.00

No. 408 HEAVY-DUTY DELUXE BASIC KIT

Enables the "production" shop to assemble the equipment needed for high-speed valve seat grinding on large and special engines.

Kit includes: 1 Heavy-Duty 55° Angle Vibro-Centric Driver; 1 Heavy-Duty Dressing Stand; 2 Standard Stone Sleeves; 1 Heavy-Duty Kit Box.

Price complete, specify voltage—(Cat. No. 408).....\$154.00

No. 545 HEAVY-DUTY UNIVERSAL KIT

"Last word" in valve seat equipment, for large-volume shops and on larger truck, tractor and Diesel engines. Larger kit box, more capacity; Heavy-Duty equipment throughout for a wider range of sizes.

Includes: 1 Heavy-Duty 55° Angle Vibro-Centric Driver; 1 Heavy-Duty Stone Dressing Stand; 2 Ball Bearing Stone Sleeves; 1 Heavy-Duty Kit Box; 1 Pilot Turning Wrench; 8 Self-Centering Pilots (up to 1/4"); 14 Vibro-Centric Grinding Stones.

Price, complete, specify voltage—(Cat. No. 545).....\$217.00

HEAVY-DUTY STONE DRESSING STAND

A precision-built, Dressing Stand for large volume shops. Used with both Automotive and Aircraft Stone Sleeves. Equipped with Timken bearing and micrometer feed diamond. Adjustable for all sizes to 6", angles to 90°.

Catalog No. 31672 Heavy-Duty Dressing Stand.....\$54.00

STANDARD STONE DRESSING STAND

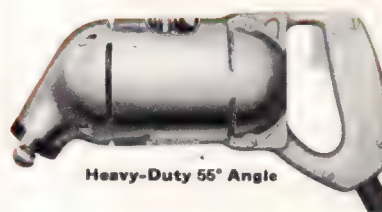
Adjustable bracket for various stone sizes. Angle adjustment, 0° (flat) to 90° (vertical). Micrometer feed diamond point on dressing arm.

Stone Capacity—Up to 3 1/2"; Net weight, 10 1/4 lbs.
No. 20153 Standard Dressing Stand.....\$22.00

"VIBRO-CENTRIC"

REG. U. S. PAT. OFF.

VALVE SEAT GRINDERS



Heavy-Duty 55° Angle

Vibro-Centric Valve Seat Grinding restores "factory accuracy" and a mirror finish to either cast-iron or hard steel valve seats by a high-speed, concentric dry grind with a positive vibrating action permanently built into the Driver spindle.

HEAVY DUTY 55° "ANGLE" VIBRO-CENTRIC DRIVER

The most popular Driver in use today in both large and small volume shops. Has ample power for maintaining correct grinding speed with the larger, heavier stones often required in tractors, trucks and larger automobile engines. 55° Angel Drive improves working clearance where body obstructions interfere.

Spindle Speed.....12,000 R.P.M.
Weight: Net.....6 3/4 lbs.; Shipping.....9 1/4 lbs.
Overall Length.....11 1/2"
Standard Voltages—115 or 220. On special order 125 or 240 volts.

Catalog No. 331 (specify voltage)
Price, complete.....\$53.00

No. 6 VIBRO-CENTRIC PRODUCTION DRIVER

A SUPERLATIVE tool for shops handling valve reconditioning on a continuous production basis. Available in two separate models: (1) A 8500 RPM Unit for maximum production on valve seats requiring stones up to and including 4" in diameter. (2) A 6000 RPM Unit to handle the large stones often required in Diesel, truck and tractor work.

Spindle Speed.....8500 R.P.M. or 6000 R.P.M.
Stone Capacity.....0" to 4"or 4 1/4" to 6"
Net Weight.....7 1/2 lbs. Shipping Weight.....9 1/2 lbs.
Overall length.....13 1/4"

Catalog No. 546 (SPECIFY SPEED AND VOLTAGE)
Price complete.....\$70.00
Standard Voltages—115 or 220 (125 or 240 volts on special order)

STANDARD STONE SLEEVE

Fits all Vibro-Centric Stones, except Aircraft type. Bronze bushings.
Price, complete (No. 22100).....\$3.85

SHORT STANDARD STONE SLEEVE

To give increased clearance in grinding hard-to-reach or obstructed valve seats, The Short Standard Stone Sleeve, because of short bushing, must be used with Aircraft-type Short Shank Pilots.

No. 23652 Short Standard Stone Sleeves.....\$3.85

BALL BEARING STONE SLEEVE

Minimizes wear, preserves accuracy, gives longer service under constant use.
No. 27200 Ball-Bearing Stone with retainer ball for grooved pilots.....\$11.00
No. 19825 Ball-Bearing Stone Sleeve without retainer ball.....11.00

VALVE SEAT INDICATOR

For testing concentricity of valve seats—calibrated to 1/1000 of an inch.
No. 13725 Valve Seat Indicator.....\$20.00



CARBON REMOVING BRUSHES

Made of tempered steel wire; used with $\frac{1}{4}$ " Drill, quickly clean carbon from cylinder heads, top of pistons, valve ports, etc., leaving a burnished surface.

- No. 21419 Hollow core, flare bottom brush.....\$1.45
 No. 21417 Side flare brush for close corner work..... 1.40
 No. 21416 Heavy duty solid wire-filed brush..... .95
 No. 21418 Small brush for cleaning Valve Guide Ports.... .85



VALVE GUIDE CLEANERS

(Use with $\frac{1}{4}$ " Drill)

Cat. No.	Minimum Size	Maximum Size	Price	Cat. No.	Minimum Size	Maximum Size	Price
21436	$\frac{1}{8}$ "	to $\frac{1}{4}$ "	\$1.20	21453	$\frac{1}{8}$ "	to $\frac{1}{4}$ "	\$1.60
21441	$\frac{1}{8}$ "	to $\frac{1}{4}$ "	1.20	21456	$\frac{1}{8}$ "	to $\frac{1}{4}$ "	1.75
22810	$\frac{1}{8}$ "	to $\frac{1}{4}$ "	1.35	21460	$\frac{1}{8}$ "	to $\frac{1}{4}$ "	1.90
21445	$\frac{1}{8}$ "	to $\frac{1}{4}$ "	1.35	17682	$\frac{1}{8}$ "	to $\frac{1}{4}$ "	2.25
21449	$\frac{1}{8}$ "	to $\frac{1}{4}$ "	1.45	15125	Ford V-8		2.25
				22375	Ford V-6		2.50

"GRUV-TOP" AUTOMOTIVE SELF-CENTERING PILOTS

Self-Centering Pilots provide an accurate, rigid axis for the operation of Vibro-Centric Stones. The Pilot has two accurately machined tapers, one at the top which fits into the top of the valve guide, and one at the bottom, on which a split sleeve expands into the lower end of the guide. The expanding feature is important in compensating for worn guides; also eliminates a large stock of "oversize" pilots, as Self-Centering Pilots expand from .020" to .030".



Nominal Size	Range	Catalog No.	Dimensions A B	Price Complete	Sleeve No.	Price of Sleeve
$\frac{1}{4}$ "	.233"—.254"	14423	$1\frac{1}{16}$ " $2\frac{7}{32}$ "	\$3.85	13908	\$0.85
		25245	$1\frac{1}{16}$ " $3\frac{1}{4}$ "	6.50	13908	.85
$\frac{9}{16}$ "— $\frac{19}{64}$ "	.277"—.303"	15792	$1\frac{1}{16}$ " $3\frac{1}{2}$ "	6.50	15145	.85
$\frac{5}{16}$ "— $\frac{31}{64}$ "	.308"—.339"	14425	$1\frac{1}{8}$ " 3"	3.85	13902	.85
		18608	$1\frac{1}{8}$ " $2\frac{1}{8}$ "	6.50	13902	.85
		16197	$1\frac{1}{8}$ " 3"	6.50	13902	.85
		21300†	$1\frac{1}{8}$ " 3"	3.85	13902	.85
		16213	$1\frac{1}{8}$ " 3"	6.50	13902	.85
		19895	$1\frac{1}{8}$ " 4"	6.50	13902	.85
		20970	2" $3\frac{1}{4}$ "	10.00	13902	.85
		23484	$1\frac{1}{16}$ " $2\frac{1}{2}$ "	6.50	13902	.85
$\frac{11}{32}$ "	(for counter-bored guides)	23633*	$1\frac{1}{16}$ " $2\frac{3}{4}$ "	3.85	13904	.85
$\frac{11}{32}$ "— $\frac{23}{64}$ "	.339"—.370"	21302	$1\frac{1}{16}$ " $2\frac{1}{16}$ "	3.85	13904	.85
		16199*	$1\frac{1}{16}$ " $3\frac{1}{4}$ "	3.85	13904	.85
		14426	$1\frac{1}{16}$ " $3\frac{1}{4}$ "	3.85	13904	.85
		24319	$1\frac{1}{16}$ " $4\frac{1}{4}$ "	10.00	13904	.85
		24310	$1\frac{1}{16}$ " $2\frac{1}{16}$ "	10.00	13904	.85
		26528	$2\frac{1}{16}$ " $3\frac{1}{8}$ "	6.50	13904	.85
$\frac{3}{8}$ "	(for counter-bored guides)	21304	$1\frac{1}{16}$ " $3\frac{1}{2}$ "	3.85	13903	.85
$\frac{3}{8}$ "— $\frac{25}{64}$ "	.371"—.394"	14427	$1\frac{1}{16}$ " $3\frac{1}{2}$ "	3.85	13903	.85
		16201	$1\frac{1}{16}$ " $3\frac{1}{2}$ "	7.50	13903	.85
		17345	$2\frac{1}{16}$ " $3\frac{1}{2}$ "	6.50	13903	.85
		16204	$1\frac{1}{16}$ " $4\frac{1}{2}$ "	7.50	13903	.85
		23937	$2\frac{1}{16}$ " $3\frac{1}{2}$ "	6.50	13903	.85
		20667	$2\frac{1}{16}$ " $2\frac{1}{2}$ "	6.50	13903	.85
		32061	$1\frac{1}{8}$ " $3\frac{1}{2}$ "	7.50	13903	.85
$\frac{25}{64}$ "	.391"—.406"	25206	2" $3\frac{1}{2}$ "	10.00	14653	.85
$\frac{13}{32}$ "— $\frac{27}{64}$ "	.402"—.424"	14428	$1\frac{3}{16}$ " $3\frac{5}{8}$ "	3.85	13909	.85
		16826	$1\frac{3}{16}$ " $4\frac{1}{2}$ "	6.50	13909	.85
		17396	$1\frac{13}{16}$ " $3\frac{1}{2}$ "	10.00	13909	.85
$\frac{17}{64}$ "— $\frac{7}{16}$ "	.418"—.434"	16206	$1\frac{5}{8}$ " $3\frac{7}{8}$ "	6.50	13909	.85
$\frac{7}{16}$ "— $\frac{23}{64}$ "	.433"—.455"	14429	$2\frac{1}{4}$ " $3\frac{1}{4}$ "	3.85	13901	.85
		24343	$2\frac{1}{4}$ " $3\frac{1}{4}$ "	10.00	13901	.85
		22989	$2\frac{1}{4}$ " $3\frac{1}{4}$ "	6.50	13901	.85
		15179	$2\frac{1}{4}$ " $4\frac{1}{2}$ "	6.50	13901	.85
		25219	$2\frac{1}{4}$ " 4"	10.00	13901	.85
		23971	$3\frac{1}{4}$ " $3\frac{3}{4}$ "	6.50	13901	.85
		15743	$2\frac{1}{4}$ " $5\frac{1}{2}$ "	7.50	13901	.85
		17903	$3\frac{1}{4}$ " $4\frac{1}{2}$ "	6.50	13901	.85
		25221	$1\frac{1}{2}$ " $3\frac{7}{8}$ "	10.00	13901	.85
		16784	$1\frac{1}{2}$ " $3\frac{1}{2}$ "	6.50	13901	.85
		23337	$1\frac{1}{2}$ " $4\frac{1}{4}$ "	6.50	13901	.85

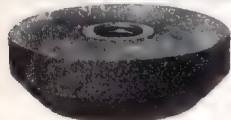
Nominal Size	Range	Catalog No.	Dimensions A B	Price Complete	Sleeve No.	Price of Sleeve
$\frac{15}{32}$ "— $\frac{31}{64}$ "	.464"—.495"	14430	$2\frac{1}{2}$ " $3\frac{3}{8}$ "	6.50	13910	.85
$\frac{1}{2}$ "— $\frac{17}{32}$ "	.496"—.535"	14431	2" $3\frac{1}{2}$ "	\$3.85	13905	\$0.85
		16047	2" $4\frac{1}{2}$ "	7.50	13905	.85
		23975	$3\frac{1}{2}$ " $3\frac{1}{2}$ "	10.00	13905	.85
		23665	3" $3\frac{1}{4}$ "	10.00	13905	.85
		26908	3" $4\frac{1}{2}$ "	10.00	13905	.85
		19894	4" $3\frac{1}{2}$ "	6.50	13905	.85
		22184	$3\frac{1}{2}$ " $4\frac{1}{2}$ "	6.50	13905	.85
		17643	$1\frac{1}{2}$ " $3\frac{1}{2}$ "	10.00	13905	.85
		25225	$2\frac{1}{4}$ " $4\frac{1}{2}$ "	10.00	13905	.85
$\frac{17}{32}$ "— $\frac{9}{16}$ "	.5312"—.5625"	27108	$2\frac{1}{16}$ " $3\frac{1}{2}$ "	10.00	24497	1.10
$\frac{9}{16}$ "— $\frac{19}{32}$ "	.558"—.598"	14432	2" $3\frac{1}{2}$ "	6.50	13899	1.10
		23522	$3\frac{1}{2}$ " $3\frac{1}{2}$ "	7.50	13899	1.10
		26864	$3\frac{1}{2}$ " $4\frac{1}{2}$ "	10.00	13899	1.10
		19203	$4\frac{1}{2}$ " $3\frac{1}{2}$ "	10.00	13899	1.10
$\frac{19}{32}$ "	.588"—.598"	14435 #	$\frac{3}{4}$ " $3\frac{1}{2}$ "	3.85	13899	1.10
$\frac{5}{8}$ "— $\frac{21}{32}$ "	.621"—.661"	14433	$1\frac{1}{2}$ " $3\frac{1}{2}$ "	6.50	13906	1.10
		23939	$3\frac{1}{2}$ " $3\frac{1}{2}$ "	7.50	13906	1.10
		23578	3" $4\frac{1}{2}$ "	7.50	13906	1.10
		26143	$5\frac{1}{8}$ " $4\frac{3}{4}$ "	10.00	13906	1.10
$\frac{11}{16}$ "— $\frac{23}{32}$ "	.683"—.724"	15178	2" $3\frac{1}{2}$ "	10.00	15046	1.65
		26327	$2\frac{1}{4}$ " $3\frac{1}{2}$ "	10.00	15046	1.65
$\frac{3}{4}$ "— $\frac{25}{32}$ "	.746"—.786"	27110	$7\frac{1}{2}$ " $3\frac{1}{2}$ "	12.50	14149	1.65

* For Chevrolet. # For Ford Model "A". † For counter-bored guides.

"GRUV-TOP" Plug Type Automotive Pilots

RANGE	CATALOG NO.	ENGINE	PRICE COMP
.8458"—.8525"	18248	Ford "60"	\$3.85
1.0278"—1.0330"	14155	Ford "V-8"	3.85

No. 19829 Pilot Turning Wrench.....\$5.00



VIBRO-CENTRIC AUTOMOTIVE VALVE SEAT GRINDING STONES

Made especially for grinding by the Vibro-Centric Method. Stones are available in three grades—one for grinding cast-iron and soft steel seats; another for hard steel and stellite inserts; and a third for super-polishing either type of seat after grinding. The finishing stone is only necessary where a high-lustre finish is desired. All stones have threaded steel inserts which screw directly on the end of the stone sleeve.

SIZE	FOR SOFT STEEL AND CAST IRON			FOR HARD STEEL AND STELLITE			SIZE	FOR FINISH-GROUNDING		PRICE EACH
	45° Stone	30° Stone	20° Stone	45° Stone	30° Stone	20° Stone		45° Stone	30° Stone	
$1\frac{1}{4}$ "	14216	14197	25676	14217	14218	.....	$1\frac{1}{4}$ "	14414	14413	\$1.85
$1\frac{1}{2}$ "	18541	25671	23666	18540	25670	23667	$1\frac{1}{2}$ "	18542	25672	1.85
$1\frac{3}{4}$ "	14084	14198	14092	14056	14219	14107	$1\frac{3}{4}$ "	14382	14370	1.85
$1\frac{5}{8}$ "	14063	14199	14093	14100	14287	14108	$1\frac{5}{8}$ "	14383	14371	1.85
$1\frac{7}{8}$ "	14085	14090	14094	14049	14105	14109	$1\frac{7}{8}$ "	14384	14372	1.85
$1\frac{9}{8}$ "	23957	.....	.....	.....	.....	.....	$1\frac{9}{8}$"	.....	.....	1.85
$1\frac{11}{8}$ "	14086	14268	14095	14101	14288	14110	$1\frac{11}{8}$ "	14385	14373	1.85
2"	14064	14091	14096	14102	14106	14111	2"	14386	14374	1.85
$2\frac{1}{4}$ "	14087	14278	14097	14103	14289	14112	$2\frac{1}{4}$ "	14387	14375	2.30
$2\frac{1}{2}$ "	14088	14279	14098	14104	14290	14113	$2\frac{1}{2}$ "	14388	14376	2.30
$2\frac{3}{4}$ "	16929	25635	23668	.....	.....	23669	$2\frac{3}{4}$ "	23670	25636	2.30
$2\frac{5}{8}$ "	14089	14280	14099	14050	14291	14114	$2\frac{5}{8}$ "	14389	14377	2.30
$2\frac{7}{8}$ "	14285	14281	14274	14239	14292	14270	$2\frac{7}{8}$ "	14390	14378	3.00
$2\frac{9}{8}$ "	14153	14282	14275	14200	14293	14271	$2\frac{9}{8}$ "	14391	14379	3.00
$2\frac{11}{8}$ "	14286	14283	14276	14295	14269	14272	$2\frac{11}{8}$ "	14392	14380	3.00
3"	14154	14284	14277	14243	14294	14273	3"	14393	14381	3.00
$3\frac{1}{2}$ "	21474	26527	.....	21473	.....	.....	$3\frac{1}{2}$ "	21475	25634	3.85

Prices and Specifications of larger diameter stones can be secured on application.

Black & Decker



"ELECTRIC TOOL HEADQUARTERS"

NO. 6 UNIVERSAL VALVE & TOOL GRINDER

An unequalled combination of engineering and operating features makes this new Heavy-Duty Production Grinder the outstanding leader in valve reconditioning performance. A wide variety of valve sizes can be refaced on a high-speed production basis and also the flexibility of the machine permits many tool grinding operations such as the sharpening of cutters and reamers. Attachments for grinding Valve Stems, Tappets and Rocker Arms are standard equipment. All controls and adjustments are designed for foolproof, rapid operation and performance in general is unexcelled in today's markets.

Standard Voltage:

115V, 1 Ph., 50-60 cycle, Catalog No. 522.....\$ 950.00

Available on Special Order:

125V, 1 Ph., 50-60 cycle, Catalog No. 522.....\$ 950.00

220V, 1 Ph., 50-60 cycle, Catalog No. 522..... 950.00

240V, 1 Ph., 50-60 cycle, Catalog No. 522..... 950.00

115V, 1 Ph., 25 cycle, Catalog No. 523..... 950.00

115V, D.C., Catalog No. 527..... 970.00

Give complete characteristics of your current when ordering.

OUTSTANDING FEATURES:—

1. Range:—Reface valves of any angle from 0° to 90° with valve stems from $\frac{1}{4}$ " to $1\frac{1}{4}$ " in diameter. Head diameters up to $5\frac{1}{4}$ " are easily handled.

2. Traverse grind any angle valve from 0° to 90°. This of course includes flat type valves.

3. Air Chuck grips or releases valve stem instantly—alignment is assured with twin grip collets. Regulated valve reduces air pressure of supply line to the 80 to 90 lbs. required by air chuck.

4. A separate universal motor drives the workhead. Motor speed is quickly adjustable to accommodate large and small sized valve heads.

5. Hypoid gearing drives the workhead spindle for the smoothest grinding finish.

6. Work table is mounted on slide bearings of simple, clean design. After long service an adjustment for wear can be made without any disassembling of the parts.

7. For abundant power the grinding wheels are driven by a separate $\frac{3}{4}$ horsepower constant-speed motor.

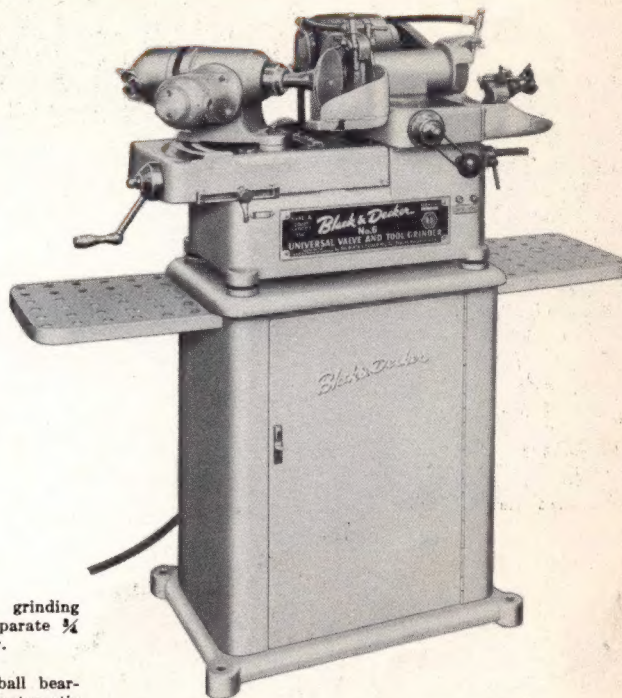
8. Closed-type, grease-sealed ball bearings, pre-loaded, with automatic take-up for wear are at each end of the wheel spindle. Assembly is rigidly mounted in a removable "quill" clamped in the wheel saddle.

9. Automatic work-head motor switch. Turns "on" and "off" as work table moves valve toward and away from wheel. Work table travel is limited by an adjustable stop which prevents grinding the valve stem.

10. A drawer-tank of 2 gallon capacity permits large volume wet grinding. A series of baffle plates "settle" grinding sediment. Fluid nozzles have flow control valves and ball-socket joints.

11. Standard equipment includes attachments for grinding Valve Stems, Tappets and Rocker Arms.

12. Tool Grinding: The flexibility and adjustments possible on this machine suit it for many production jobs and machine shop tool grinding operations.



GENERAL SPECIFICATIONS

Overall Height—50"	Cabinet Net Wt.—160 lbs.
Overall Width—50"	Total Ship. Wt.—500 lbs.
Cabinet—29 $\frac{1}{2}$ " x 24" x 16"	Valve Stem Cap.— $\frac{1}{4}$ " to $1\frac{1}{4}$ "
Grinder Net Wt.—290 lbs.	Valve Head Cap.—Up to $5\frac{1}{4}$ "

REPLACEMENT AND EXTRA EQUIPMENT

No. 31729	V-Belt DC and 60 cycle wheel motor.....	\$.85
No. 32588	V-Belt 25 cycle wheel motor.....	1.25
No. 32860	$\frac{1}{4}$ " to $\frac{1}{2}$ " Collet for short valve stems.....	9.00
No. 18325	$\frac{1}{2}$ " to $\frac{3}{8}$ " Collet.....	8.75
No. 15200	$\frac{1}{2}$ " to $1\frac{1}{4}$ " Collet.....	11.00
No. 31513	$\frac{1}{2}$ " to $\frac{3}{8}$ " Collet.....	13.25
No. 31514	$\frac{3}{8}$ " to $1\frac{1}{4}$ " Collet.....	13.25
No. 32944	6" x $\frac{3}{4}$ " x 2"—C60 N5V Recessed Grinding Wheel (Standard Equipment).....	3.65
No. 31429	6" x $\frac{3}{4}$ " x 2"—A46 N5V Recessed Wheel..	3.65
No. 32822	6" x $\frac{3}{4}$ " x 2"—C80 N5V Recessed Wheel..	5.00
No. 20939	4" Recessed Grinding Wheel for Valve Stems and Rocker Arms (Standard Equipment)..	2.65
No. 33245	6" x $\frac{3}{4}$ " x 2"—C60 N5V Recessed Grinding Wheel with 22°30' Angle on face.....	5.35
No. 32921	Hand Wheel Assembly for use in place of Air Chuck.....	7.25
No. 34253	Grinding Oil, 1-gallon can.....	1.75
No. 34976	Hypoid Oil, 9 oz. can.....	.65

The Black & Decker Guarantee

Every Black & Decker product has been carefully inspected before shipment, and we guarantee to correct any defect caused by faulty material or workmanship. Our obligation assumed under this guarantee is limited to the replacing of any part or parts which prove to our satisfaction, upon examination, to have been defective, and which have not been misused or carelessly handled. The complete unit must be returned to one of our Factory Service Branches or to our Factory, transportation charges prepaid. We reserve the right to decline responsibility where repairs have been made or attempted by others. No other guarantee, written or verbal, on our products is authorized by us.

Black & Decker SERVICE



To assure you prompt, efficient service on Black & Decker Products, we operate 34 Factory Service Branches at strategic points throughout the United States and Canada. These Service Branches are manned by Factory-trained personnel and equipped with genuine Black & Decker service and replacement parts. When you need "factory service," you will find a Black & Decker Factory Service Branch within 24 hours of you, ready to serve you as expertly, as reasonably and as promptly as at Towson.

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ATLANTA 3, GA.	316 TECHWOOD DRIVE, N.W.	MEMPHIS 3, TENN.	921 S. THIRD ST.
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BOSTON 35, MASS.	12 MARKET ST. (BRIGHTON)	MILWAUKEE 13, WIS.	6301 BLUE MOUND ROAD
BUFFALO 9, N. Y.	881 W. DELAVAN AVE.	MINNEAPOLIS 8, MINN.	2815 NICOLLET AVE.
CHARLOTTE 16, N. C.	800 N. COLLEGE ST.	NEWARK 5, N. J.	611 McCARTER HIGHWAY
CHICAGO 7, ILL.	1100 W. JACKSON BLVD.	NEW ORLEANS 13, LA.	639 DRYADES ST.
CINCINNATI 2, OHIO	1094 GILBERT AVE.	NEW YORK 13, N.Y.	55 VANDAM ST.
CLEVELAND 15, OHIO	2118 EAST 21st ST.	OMAHA 2, NEB.	2218 LEAVENWORTH ST.
DALLAS 12, TEXAS	1808 N. INDUSTRIAL BLVD.	PHILADELPHIA 3, PA.	333 N. 20th ST.
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DENVER 4, COLO.	1010 BANNOCK ST.	PORTLAND 9, ORE.	1640 N.W. JOHNSON ST.
DETROIT 2, MICH.	3028 E. GRAND BLVD.	SAN FRANCISCO 3, CALIF.	BRYANT ST. & NINTH
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February 18, 1953

1953 CATALOG — A Useful Guide for Solving
Many of Your Production and Cost Problems

Gentlemen:

Enclosed you will find a copy of our 1953 Standard Catalog which describes the world's most complete line of Portable Electric Tools, Attachments and Accessories.

Wherever you have the problem of increasing production or cutting costs you will often find that Black & Decker Portable Electric Tools can solve your problems. We believe, because of the versatility and adaptability of our products, that it will be to your advantage to study the capability of these tools.

Forty-three years of engineering and manufacturing experience are behind every Black & Decker product. In addition, to give you the finest in "factory" service we own and operate 31 Service Stations at strategic locations throughout the nation. Here, factory-trained mechanics service and repair your tools efficiently and quickly using only genuine replacement parts.

Our products are handled by authorized distributors. If you are not acquainted with our distributor in your vicinity, let us know and we will be happy to put you in touch with him.

Should you desire more information, and/or a copy of our Master Catalog which gives more detailed information, please do not hesitate to write us. Also, if you have any problems regarding the application of Portable Electric Tools we will be glad to have one of our own men work with you in solving them.

We trust that we may be of service to you.

Very truly yours,

THE BLACK & DECKER MFG. CO.

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General Sales Manager

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